Philip C. Watkins

Gratitude and the Good Life

Toward a Psychology of Appreciation

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Contents

Chapter 1
Introduction: Why a Science of Gratitude?

> *Sadly, while plumbing the depths of what is worst in life, psychology has lost its connection to the positive side of life – the knowledge about what makes human life most worth living, most fulfilling, most enjoyable and most productive.*
>
> –Martin E. P. Seligman (1998)

Why should there be a science of gratitude? For that matter, why should there be a science of positive psychology? Given the economic, social, and psychological problems in the world, does it even make sense to spend valuable research time and money on the "positive side of life"? Psychological disorders seem to be increasing in prevalence, so why should we even be writing articles and books on gratitude and positive psychology? In this chapter I hope to answer these questions; I hope to demonstrate why a science of positive psychology is needed, and why a science of gratitude is an important aspect of that endeavor.

1.1 Neglecting the Good: Ignore It and It Will Go Away

First, I would like to argue that psychology has been overly focused on the unpleasant side of life. But before discussing psychology's bias toward the negative, it is important to be clear about the definition of positive psychology, and Seligman's definition contained in the epigraph is as good as any. Positive psychology is the scientific study of "the positive side of life", and this includes four important facets: the factors that make life "most worth living, most fulfilling, most enjoyable, and most productive." Elsewhere Seligman has defined the four "pillars" of positive psychology, which he cites as the study of subjective well-being, positive emotions, positive psychological traits, and positive institutions. Clearly, gratitude is one of

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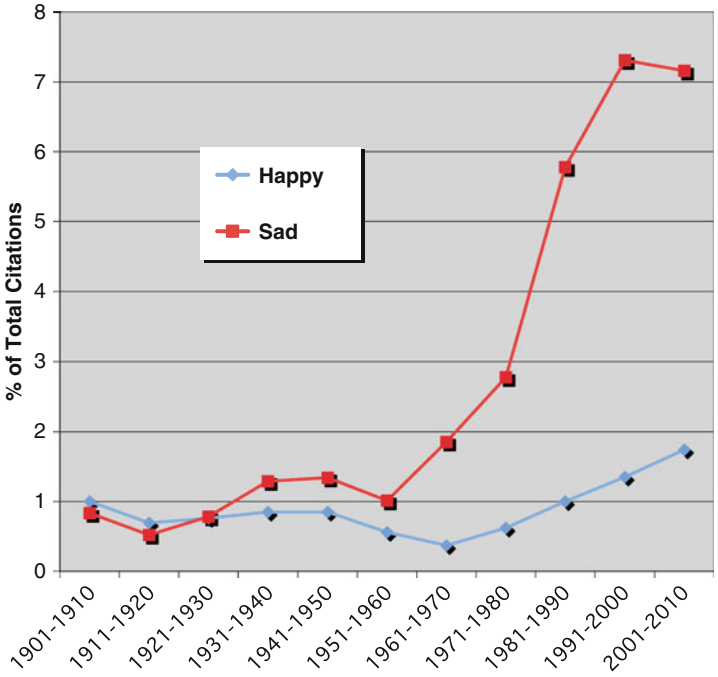

Fig. 1.1 Percent of "Happy" and "Sad" citations by decade (Note: "Happy" citations included the following descriptors: joy, happy, happiness, subjective well-being, life satisfaction, contentment, euphoria, cheer. "Sad" citations included the following descriptors: Sad, depressed, depression, dysphoria, dysphoric, melancholy, melancholic)

those "positive emotions" and is also a "positive psychological trait." Why is it important to study these subjects?

Because psychology's preference for studying unpleasant emotions and unhappiness has been well documented in the literature (e.g., Diener, Suh, Lucas, & Smith, 1999), I will not continue to bemoan this bias here. Instead, I would like to emphasize some interesting trends in this bias. In Fig. 1.1, I show the proportion of studies that investigated positive and negative conditions over time. There are several aspects of this figure I would like to highlight. First, note that I computed the number of citations by decade as a percent of the total number of citations in a given decade. Although not always done in this way, I believe it is important to deal with proportions because the number of publications in psychology has generally increased over the years as the discipline of psychology has grown.[1]

[1]A quick note is in order about the total number of citations over the years. Although in general the total number of citations has grown over the years—and at times has grown exponentially—the total number of citations actually decreased from the 1930s to the 1940s. This is likely because of the war effort.

Thus, proportions allow us to see whether there has been real change in the study of these variables relative to other areas of concern in psychology. I conducted an unrestricted word search using *PsycInfo* that emphasized happiness and sadness. Rather than choosing a number of positive and negative state variables, I chose to focus on these two states because it is well known that there are more distinct negative than positive emotions.[2] Second, note how the study of emotional variables (both positive and negative) seemed to reach a low point in the 1950s. I believe that this was probably because of the dominance of the behavioral paradigm at the time; the zeitgeist was that emotions were unseen variables that could not be studied scientifically. Third, note how the study of emotion has progressively increased since the 1950s.

The final point I would like to highlight in this figure is how the study of positive emotion has grown relative to the study of negative emotions in recent years. The turning point appears to have occurred in the 1960s, when the study of pleasant emotions continued to decline but the study of unpleasant states began increasing. Although the study of positive emotions has grown in the last 40 years, this appears to be reflective of the general growth in interest in the study of emotion, rather than increased interest in positive affect per se. Indeed, the increase in the study of positive emotions has been dwarfed by the growth in the study of unpleasant emotions over the last 40 years. Interest in negative emotions showed a steep incline during the 1980s, and seems to have reached its apex in the 1990s. Only during the last decade has the interest in the study of positive emotions gained slightly on the study of unpleasant states. Thus, although recently researchers are indeed devoting more of their research efforts to the study of positive emotions, there has been a much greater increase in the study of negative emotions over the last 40 years. In sum, the negative bias in psychology has increased in recent years.

But perhaps this is as it should be. Perhaps unpleasant emotional states are more frequent and more important than pleasant emotions, and thus they should receive more research attention. In fact however, positive affective states are experienced much more frequently than negative states. A good example of this positive emotion bias is found in the experience sampling study conducted by Carstensen, Pasupathi, Mayr, and Nesselroade (2000). In this study participants were paged five times per day at random intervals and were asked to report their current emotional experience on 11 negative and 8 positive emotional states. On average, participants were over three times more likely to be experiencing a positive than a negative emotional state. For example, there was an 89 % chance that a participant would be experiencing "happiness" at any given sampling point, while there was only a 28 % chance that they would be experiencing any sadness. The most frequently experienced negative emotional state was anxiety (reported on 44 % of the sampling occasions), whereas the least frequently reported positive emotion was reported on 69 % of

[2]I also conducted a literature search using a number of positive and negative state terms, and I also conducted title searches on these variables. Basically all of the literature searchers that I conducted revealed the same story.

the experience sampling prompts ("excitement"). This finding is typical of studies using various methods of emotional experience sampling (e.g., Diener & Diener, 1996; Fredickson, Tugade, Waugh, & Lewis, 2003), and suggests that our focus on negative emotional experiences in psychological science is not reflective of the actual emotional experience of individuals in their day-to-day life. As Diener and Diener titled their article, the frequency of emotional experience indicates that "*Most people are happy*", but our research focus seems to imply that most people are miserable. Because pleasant emotional states are experienced much more frequently than unpleasant states, perhaps more research attention should be devoted to investigating the positive side of peoples' emotional life.

Furthermore, people are much more likely to recall positive than negative experiences from their recent past. I have found this frequently in my lab, and a recent prospective study illustrates this bias. In this investigation we assessed 140 people four times over a 2-month period. Amongst administering a number of well-being variables, we also asked individuals to recall "salient experiences from the last week" for a 5-min recall period. On average, our participants recalled over four times as many positive as negative memories over the 5-min period (9.63 vs. 2.18). The greatest bias however, occurred during the first minute of recall (when one would expect the most accessible memories to be remembered). Here people recalled almost 4.7 times more positive than negative memories. In everyday experience and in memory, people experience far more positive than negative emotional events.

One can also evaluate important sources of literature to evaluate the frequency of the positive and negative. I systematically evaluated this with the English Bible.[3] Although many think of this sacred text as oriented toward the negative with a punitive emphasis, the results of word searches show otherwise. I conducted several different word searches and all told the same basic story. Although the bias is stronger in the New Testament, both testaments showed a bias toward references to positive states. Figure 1.2 illustrates the results of one of my word searches. This search is probably most comparable to Fig. 1.1 because I focused on biblical words that were relevant to happy and sad states. Because the Old Testament is much larger than the New, the variable on the ordinate is a percentage of the total number of state references in the respective testament. Note that both testaments show a positive bias, and in the New Testament there are over twice as many references to happy than sad states. Thus, even in ancient sacred texts there seems to be more emphasis on the positive over the negative.

It could be argued however, that although positive emotions are experienced more frequently, negative experiences have a greater impact on an individual's emotional well-being. Perhaps positive states should be viewed as the default emotions, and because we devote more attention and cognitive effort to negative affective states (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001), the experience and frequency of unpleasant emotions are more important to life satisfaction. Again however,

[3]In this search I used the English Standard Version of the Bible.

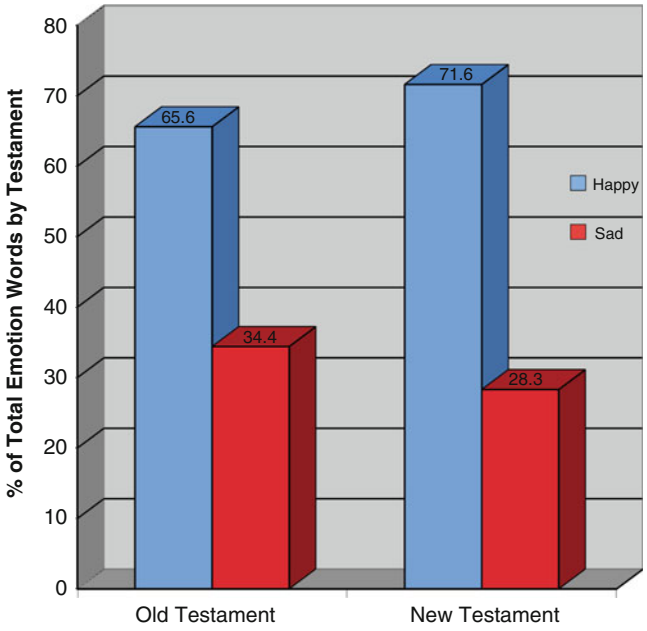

Fig. 1.2 Happy/sad biblical word count (Note: Because the Old Testament is much larger than the New Testament, I used a dependent variable that was the percentage of total emotion words in each testament. "Happy" words: joy, rejoice, blessed, happy, glad, cheerful; "Sad" words: Sorrow, mourn, cursed, sad, weep gloomy. Totals represent these words and their appropriate derivatives. In the case of "blessed" and "cursed" however, I did not use any derivatives)

the actual data contradict this theory. For example, in our study described earlier, positive affect at Time 1 predicted satisfaction with life at Time 4 (about 2 months later) better than did Time 1 negative affect (Pearson $r = .41$ vs. $-.28$). Furthermore, we found that even with our depression measure (CES-D), positive affect predicted depression 2 months later about as well as negative affect ($-.271$ vs. $.268$). This is consistent with other work suggesting that depression may be caused by a deficit in positive affect as much as it is caused by excess negative affect (e.g., Davidson, 1993, see Chap. 10 this volume). The interesting implication of these findings is that aspects of positive psychology may turn out to be important to negative psychology. Perhaps even more striking are the well-known results of the so-called "Nun Study" (Danner, Snowden, & Friesen, 2001). In this study the positivity of nuns' spiritual autobiography written in their early twenties predicted survival rates 50–70 years later. In other words, nuns who wrote more positively about their life actually lived longer. This does not appear to be an isolated finding because this has been conceptually replicated in the writings of psychologists and from the positivity and intensity of smiles in baseball players' photographs (Abel & Kruger, 2010). Moreover, in a recent meta-analysis (Howell, Kern, & Lyubomirsky, 2007), happy individuals were found to live about 14 % longer than those who were unhappy. This is not to say that negative emotional experiences (or the lack thereof) are not

important considerations in evaluating well-being, but clearly positive emotional experiences are at least as important.

Why has psychological science seemed to be so biased to investigating negative emotional states and traits? Again, this issue has been well described in other work (e.g., Diener et al., 1999; Myers & Diener, 1995), but here I would like to emphasize one additional factor I believe is important to understanding this trend. In 2001 Baumeister and colleagues published a compelling review concluding that when it comes to emotional experiences and emotional information, "Bad is stronger than good." Bad emotional experiences, bad interactions with others, bad feedback, bad memories, and bad emotional information have more psychological impact on us than good. A simple example may suffice. After reading my student evaluations from a class, 30 of the 35 students may offer me positive feedback, but perhaps 2–3 students have something critical or unpleasant to say about my teaching. What aspect of this feedback will tend to dominate my consciousness? It's usually the negative comments that consume my attention. Bad events and bad experiences probably consume our attention because they point out that something is wrong, and it needs to be fixed soon (if not immediately). I believe that this effect has carried over from individuals to psychological scientists. Just as it is much easier for individuals to dwell on their bad experiences and bad traits over their good ones, so it is easier for us as psychological scientists to focus on fixing unpleasant emotions and negative traits. These are problems that demand attention—not only to individuals but to psychological scientists as well—and they need to be fixed "right now." Unfortunately, because "Bad is stronger than good", the good is easily neglected, and perhaps this is one more reason why more energy should be devoted to investigating the good life.

1.2 The Importance of a Science of Gratitude

As part of the constellation of positive emotions, psychological science has neglected gratitude along with the other positive affects. A simple comparison of gratitude and depression research illustrates this neglect. A *PsycInfo* key word search reveals that studies of depression have been published over 246 times more than studies on gratitude (67,672 vs. 275). One might justifiably complain that I'm cheating here a bit because depression is a disorder whereas gratitude is an emotional state. However, when one compares sadness to gratitude the result reveals over a seventeen to one bias. But isn't sadness experienced more frequently than gratitude? Again the answer appears to be "no." For example, Fredrickson, Tugade, Waugh, and Larkin (2003) found that gratitude was experienced much more frequently than any other negative emotion in the 2 weeks following the 9/11 attacks (this included both anger and sadness). Furthermore, as shown by McCullough, Kilpatrick, Emmons, and Larson (2001), gratitude is arguably the prototypical emotion that is experienced in the context of receiving benefits. Because benefit exchange is an important interaction for humans, this alone should make gratitude an

important topic for research. But perhaps the argument could be made that although gratitude is a common human emotion, it is not an emotion of much consequence. Perhaps it is somewhat of an epiphenomenon of human exchange sequences, and the experience of gratitude adds no meaningful consequences to one's life.

Are there any important consequences to the experience of gratitude? Or, to put it differently: What good is gratitude? The primary argument of this book is that gratitude is an important facet of emotional well-being. I will review this research in more detail in Chap. 4 (see also Watkins, 2004, 2008; Watkins, Van Gelder, & Frias, 2009 for reviews), but let me anticipate by summing up this research. A number of studies have shown that gratitude is strongly correlated with various measures of subjective well-being (SWB), and experimental work has provided promising evidence that gratitude is not merely associated with well-being, it actually *causes* increases in happiness. In fact, because gratitude has been so strongly associated with SWB when compared to other traits and virtues, some have referred to gratitude as the "poster child" of positive psychology (Wood, Froh, & Geraghty, 2010). In brief, gratitude appears to be important to the good life, and this alone should encourage research into this vital topic.

1.3 Furthering the Science of Gratitude

In a nutshell, the goal of this book is to further the science of gratitude. Through this book I hope to clearly explain this important state and trait, and I hope to encourage new research on gratitude by describing useful research designs and specific suggestions for future research. I attempt to accomplish this goal in two major sections of the book: the "what" and the "how" of gratitude. In the first section I describe what gratitude is, what causes gratitude, and what grateful people are like. I also provide a crucial chapter where I explain the good of gratitude. The chapters in this section are titled by a series of questions and in each of these chapters I hope to answer these issues by reviewing the research to date. In the second section of the book I explain the "how of gratitude." In Chap. 4 I show that gratitude appears to be an important component of living well, but the question remains, "*How* does gratitude enhance well-being?" In the second section I hope to answer this question by proposing a number of putative gratitude/well-being mechanisms. By necessity this section will be more theoretical and speculative than the first, but my hope is that by providing a theory about how gratitude enhances well-being, this will promote new research that will investigate these mechanisms.

1.4 Conclusion: A Guiding Theory of Gratitude

A running theme throughout this book will emphasize my theory regarding the function of gratitude. Other helpful theories of gratitude have emphasized the nature of gratitude (e.g., McCullough et al.'s, 2001 moral emotion theory of gratitude),

the causes of gratitude (e.g., Wood, Maltby, Stewart, Linley, & Joseph's social-cognitive theory, 2008), and how gratitude can be adaptive (e.g., Fredrickson's "broaden-and-build theory" of positive emotions, 1998, 2001, 2004; Algoe's "find, remind, and bind theory" of the social function of gratitude, 2012). In this text I will introduce a more general theory that attempts to explain the functionality of gratitude. At a convention several years ago a colleague asked me, "Why is gratitude so great?" We had been discussing a number of the encouraging research findings about gratitude, and this apparently provoked his question. I propose that gratitude enhances well-being because psychologically it *amplifies the good* in one's life. Just as an amplifier magnifies the sound going into a microphone, so gratitude amplifies the information that it feeds off of. Just as a magnifying glass magnifies the text it is focused on, so gratitude magnifies the good that it is focused on. An amplifier increases the strength of a signal. In the case of gratitude, it should function to increase the signal strength of the good in one's life. I submit that gratitude helps people live well because it clearly identifies who and what is good for individuals, and in this way gratitude amplifies the good in one's life. Thus, when one experiences gratitude, psychologically this emotion organizes cognitive and behavioral resources to clearly identify the things and people that are important to their well-being. When one is aware of those factors that are important to living well, then they will be motivated to pursue those people and things, and thus their well-being will be enhanced. Moreover, not only does gratitude amplify the external good that contributes to one's well-being, it also amplifies the good within a person. When individuals feel grateful, I propose that they should be more likely to be good to others; i.e., gratitude promotes prosocial behaviors. I will attempt to use this amplification theory to introduce and organize the findings on gratitude in this book. Throughout the course of this text, I will also try to expand on this theory with the goal of generating more testable hypotheses on gratitude. I believe that this amplification model provides a helpful organization and understanding of past research, and my hope is that this theory will promote future investigations on gratitude as well.

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Part I
The "What" of Gratitude

Chapter 2
What Is Gratitude and How Can It Be Measured?

> *Thankfulness or gratitude is a desire or eagerness of love, by which we strive to benefit one who has benefitted us from a like affect of love.*
>
> –Spinoza

Perhaps it is almost too obvious to say that before a construct can be investigated it must first be adequately defined. However trite that dictum seems to be, it is still important to emphasize, particularly when it comes to a construct such as gratitude. As with many words, gratitude is used in a number of ways in common usage. In various contexts gratitude can refer to an emotional state, an emotional expression, a character trait, or even a virtue. Thus, it is important that we are clear about the terms we are using in the study of gratitude. Many examples could be cited in the social sciences showing that when a construct has not been adequately operationalized, this has led investigators into many cul-de-sacs and needless debates. Until one knows what one is aiming at, one had best not pull the trigger. Gratitude is probably like other emotional states—we all know what it is until we attempt to define it—but defining it is still an important task. Until we clearly delineate what we are investigating, we cannot proceed to study it. In order for a science of gratitude to progress we must first operationalize this construct. Thus this chapter is devoted to explaining a clear definition of gratitude, and various approaches that have been taken to measuring it. Before presenting my definition of gratitude however, I feel it would be helpful to provide a brief linguistic history of the word. I will then review Rosenberg's helpful typology of emotion, followed by my preferred definition of gratitude. Here I will discuss an important issue in the understanding of gratitude: the relationship of gratitude to appreciation. I will then present an extensive section describing the current approaches to measuring gratitude, and will conclude the chapter with an important discussion about the relationship between gratitude and indebtedness.

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2.1 The Legacy and Grammar of Gratitude

Before offering a definition of gratitude, I think it is helpful to provide a brief history of the words *grateful* and *thank*. The word grateful probably originated in the sixteenth century (Ayto, 1990). The adjective "grate", which a person is full of when they feel grateful, is now obsolete. It was derived from the Latin "gratus" which means pleasing or thankful. In fact, often in sixteenth or seventeenth century literature a writer would use "grateful" when they simply meant that they felt pleased. All associations with "gratus" are positive, and this is consistent with research showing that gratitude belongs with the positive affects (Brunner, Watkins, & Webber, 2010; McCullough, Emmons, & Tsang, 2002; Watkins, Woodward, Stone, & Kolts, 2003). Interestingly, the word "grace" is also derived from "gratus." Moreover, in Greek "charis" does double-duty for both gratitude and grace (Bruce, 1963). This etymology suggests interesting associations between unmerited favors and gratitude, and I will expand on this connection below.

"Thank" has an even longer history than "grateful", and probably originated before the twelfth century. It was derived from "thoughtfulness" and then evolved into "favorable thought." Thus, early in this word's history thoughtfulness seemed to be essential to giving thanks. Indeed, we shall see that gratitude is a mindful and cognitively imbued emotion. Moreover, as I show in Chap. 3, favorable thought about another person is crucial to experiencing gratitude. Indeed, Lazarus and Lazarus (1994) have argued that because gratitude involves thoughtfulness about the benefits that one receives from others, it should be viewed as one of the empathic emotions. How mindful must one be about the mental state of one's benefactor in order to experience gratitude? Is accuracy about the benefactor's state of mind important to gratitude? Or is it simply a particular belief about the mindset of the benefactor that is important (regardless of whether this belief is accurate)? These are interesting questions that deserve research attention.

The history of gratitude as a practice is also illuminating. Virtually all major religions and cultures have encouraged gratitude (Emmons & Crumpler, 2000). While recorded civilizations seemed to have encouraged some form of grateful expression, not all languages have an equivalent for "thank you" (Visser, 2009). Cultural variations in grateful expressions are interesting. For example, often the Japanese will say "I'm so sorry" in situations where Americans would say "thank you." In the South Indian culture they do not have a phrase for "thank you", but they express their gratitude with some kind of return favor (Appadurai, 1985). A study of the cultural variations in the linguistics of gratitude is beyond the scope of this book, but see Visser for an intriguing review of this issue.

Although gratitude has largely been venerated as a virtue across time and cultures, there have been occasional detractors. Aristotle for example, did not think that gratitude was becoming to the noble man. This is because when one expresses gratitude they are admitting that someone else has contributed to their well-being. The source of well-being for the noble man however, is only to be found in himself. As one of the thinkers important to Western individualistic thought, I find Aristotle's

view of gratitude informative. This may help explain some interesting gender and cultural differences in gratitude that I shall discuss later. Aristotle was not alone in his distaste for gratitude. For example, Henry Ward Beecher claimed, "Next to ingratitude, the most painful thing to bear is gratitude." Joseph Stalin apparently had an even lower view of gratitude. He is said to have declared, "Gratitude is a sickness suffered by dogs." Perhaps these quotes reflect the Western individualistic attitude that one should be independent and provide for one's own welfare, but it is important to highlight that in general these opinions have been the exception rather than the rule.

Others have proposed that pivotal events in history have revolved around gratitude. Gerrish (1992) for example, has argued that the reformation teachings of Calvin and Luther were primarily "Eucharistic"—theologies that focused on God's grace and the human response of gratitude. Thus, for the Reformers the primary motivation for the religious life was a response of gratitude for the Divine gift of salvation, rather than attempting to achieve good works to earn salvation from God. Karl Barth—perhaps the most influential theologian of the twentieth century—characterizes the Reformed attitude: "Grace and gratitude belong together like heaven and earth. Grace evokes gratitude like the voice an echo. Gratitude follows grace like thunder lightening" (Barth, 1956/1961, p. 41). It is interesting that although a significant amount of research has explored the impact of forgiving another, little research has investigated the potential benefits of *receiving* forgiveness. Indeed, the psychology of religion seems to have spent little time investigating experiences of grace in religious people. The history of gratitude suggests that experiences of grace may be important to gratitude, and this would seem to be a fruitful path for future research.

Perhaps influenced by the lingering impact of the Reformation, the history of the Thanksgiving holiday in the United States is an interesting study. On November 1st, 1777, Sam Adams wrote the first declaration for an official Thanksgiving Holiday that was adopted by the 13 original states:

> It is therefore recommended . . . to set apart Thursday the eighteenth day of December next, for solemn thanksgiving and praise, that with one heart and one voice the good people may express the grateful feelings of their hearts and consecrate themselves to the service of their divine benefactor.

In 1789 George Washington then declared in his first Presidential Proclamation: "It is the duty of all Nations to acknowledge the providence of Almighty God, to obey his will, to be grateful for his benefits, and humbly to implore his protection and favor." Abraham Lincoln then reinstituted the American holiday in 1863. Included in his Thanksgiving Proclamation he wrote: "We have been the recipients of the choicest bounties of Heaven; we have been preserved these many years in peace and prosperity; we have grown in numbers, wealth, and power as no other nation has ever grown." It is worth noting that this was written in the midst of America's brutal Civil War. The annual Thanksgiving Holiday has been maintained in the United States since Lincoln's proclamation, and to this day this appears to be a vibrant holiday. Indeed, a recent Gallup poll showed that Thanksgiving was

the happiest day of the year for Americans. Although attempts have been made to secularize this celebration, the quotes above show that this was essentially a theocentric commemoration, and current Presidential Thanksgiving Proclamations illustrate that this event still appears to be focused on thanksgiving directed to the Divine. This highlights the spiritual aspects of gratitude, and this has become a vibrant area of research in the psychology of religion that I will explore in Chap. 5.

2.2 Levels of Analysis in Emotion Research

Erika Rosenberg wrote an influential paper on emotional phenomena that I believe is very helpful to organizing our understanding of gratitude. Rosenberg (1998) argued that in order to accurately understand the function of emotions, it was important to be clear about the level of analysis of the phenomena under study. Her approach followed philosopher William Wimsatt (1976), who attempted to resolve issues with reductionism and emergentism in the mind-body problem with this approach. He argued that while it is appropriate to explain higher mental processes in terms of molecular mechanisms (e.g., neurochemical processes), there are many higher-level functions that cannot be adequately understood through molecular explanations. Thus, higher-level accounts still provide explanatory models that cannot be reduced or "explained away" by lower level molecular explanations. Rosenberg cites a passage from Wimsatt's chapter that illustrates his approach:

> The point of reduction is not to get an "infinite regress" explanation for "essentially everything" in terms of "essentially nothing," but only to make sure that everything gets explained—at some *level* or another. This in fact allows for the possibility that some things may require explanation at *higher* levels. (Wimsatt, 1976, p. 225)

Rosenberg applied Wimsatt's levels of analysis approach to emotional phenomena, and I believe that her approach is helpful for understanding the various facets of gratitude as well.

Rosenberg divides affective phenomena into three levels of analysis: affective traits, emotions, and moods. An affective trait is an emotional disposition, and describes a particular person's threshold for experiencing a particular emotion. For example, a cheerful person should have a relatively low threshold for experiencing joy, thus they should experience joy easily and relatively frequently. Similarly a hostile person would be prone to anger, would have a low threshold for anger and would become angry in situations of slight provocation where most people would not experience anger. Affective traits are seen to be at the top of the affective hierarchy (i.e., indicating higher level processes), because affective traits "exert an organizational influence on affective states" (Rosenberg, 1998, p. 250). Given that these are traits, affective traits are relatively stable compared to emotions and moods. Affective traits exert their influence at the background of consciousness, and individuals are typically unaware of their activity.

At the other end of the affective continuum are emotions. Emotions are relatively brief "psychophysiological changes" (p. 250) that result from an appraisal of a specific situation in one's life. Rosenberg proposes (rightly I think) that these appraisals may be deliberative or automatic, and this will be an important issue when considering the appraisals that lead to gratitude. Of the three levels of affective phenomena, emotions are the most accessible to awareness and therefore tend to be in the foreground of consciousness. Moods share characteristics of emotions and affective traits. Like emotions, moods are transient states, but are usually longer in duration than emotions and tend to operate at the background of consciousness. Unlike emotional states, moods states are not about anything in particular, but Rosenberg argues that being in a particular mood state might facilitate the congruent emotion. For example, if one is in an angry mood, this is likely to lower the threshold for experiencing anger. If an individual is in an angry mood this would make it more likely for them to become angry in a situation that may not usually frustrate them. I have found that this typology has been very helpful for developing a comprehensive understanding of the phenomena of gratitude, and I will follow this schema in defining gratitude.

2.3 Defining Gratitude

2.3.1 Defining Gratitude as an Emotion

Following the approach of Emmons (2004), I have argued that the emotion of gratitude is experienced when one affirms "that something good has happened to them, and they recognize that someone else is largely responsible for this benefit" (Watkins, 2007). Several aspects of this definition deserve some elaboration. First, the "something good" is not only a benefit that has just taken place. Individuals may recall or become aware of a past benefit, and consequently experience gratitude. Indeed, the "benefit" may be a "good" that is not temporally limited. Many times individuals become grateful when they reflect on a "good" that has happened at some time in the past, and others become grateful when they become aware of a faithful benefit that has been consistent over time. So for example, on a wedding anniversary a husband may begin reflecting on the many benefits that his wife provides for him—things that he may have been taking for granted. Friendship in marriage is not a benefit that happens at a particular point in time and is a good that is not temporally limited. Even though this friendship is not confined to a particular event, one may become conscious of this benefit and consequently experience gratitude. In this sense someone may be grateful for a *person* because of the many benefits that they provide. Furthermore, I take a broad approach to defining what is "good." Good things may be positive benefits that have been added to one's life, but "good" things may also be the removal of unpleasant conditions. In this sense the perceived benefit may be the awareness of the absence of some

negative event. For example, after landing safely at an airport in the midst of a severe lightening storm, gratitude is a likely response. Some research has found that gratitude is the dominant emotion for survivors of a hurricane (Coffman, 1996). Presumably, this is because the hurricane makes one aware of the bad that might have happened (not surviving the hurricane), but in fact this undesirable situation did not take place (see also Teigen, 1997).

Secondly, I would like to note that the source of the benefit is external: someone else is largely responsible for the benefit. Thus, one cannot be grateful toward one's self. Affirming that I am responsible for something good is essentially the appraisal that leads to pride, a very different emotion from gratitude. A person may be grateful for aspects of their self, but this is because they feel that someone else has contributed to this quality. To illustrate, I may feel grateful that my parents developed in me an appreciation for beauty. One somewhat controversial aspect of my definition is that the external source of the benefit is *personal* in some way ("someone else is largely responsible for the benefit"). The "someone else" need not be a human benefactor (e.g., one may be grateful to God), but I submit that when one experiences gratitude they are personalizing the source of the benefit in some way; in some way the benefactor is viewed as an intentional agent that has benefitted them. The fact that people are grateful toward their pets, toward impersonal forces (e.g., "fate" or "luck"), or even inanimate objects may seem inconsistent with my proposal here, but the issue is not whether the "benefactor" is in fact intentionally benefitting the one experiencing gratitude, the issue is that the grateful individual has *personalized* the benefactor in some way. Thus, a pet may not intentionally provide benefits to his owner, but if the owner *feels* that her pet has intentionally benefitted her, she will experience gratitude. Even if the source of the benefit is vague, the grateful person feels that something has intentionally benefitted her. I submit that often in these cases this aspect of the appraisal is implicit or non-conscious. Clearly, I am taking a strong view of the personalization of the benefactor. Although some research supports this idea of perceived intentionality on the part of the benefactor, my position here is largely speculative and this might be an interesting research avenue to pursue. In this vein, I believe that more research could be devoted to experiences of gratitude where there is no obvious human benefactor. For example, in one study we found that exposure to natural beauty prompted gratitude (Watkins, Gibler, Mathews, & Kolts, 2005).

Research largely supports the definition of gratitude provided above, but recent work has provided a more complete picture of the emotion of gratitude. Clearly, research has shown that gratitude is a positive affect—people experience gratitude as a pleasant emotion and it tends to covary with other positive emotions (e.g., Brunner et al., 2010; Watkins, Scheer, Ovnicek, & Kolts, 2006). Some studies have found that grateful emotion correlates negatively with negative affect, but most studies have found that the relationship is stronger with positive affect (e.g., McCullough et al., 2002; Watkins et al., 2003). Perhaps this is an obvious and expected finding, but I believe these results are significant because social science scholars have often equated gratitude with indebtedness, which is usually understood as an unpleasant state. The issue of the relationship of gratitude to indebtedness is an important

one, and I will present a more thorough discussion of this issue later. Others have proposed that gratitude should correlate with aesthetic emotions such as awe (Keltner & Haidt, 2003), and our study that I mentioned earlier has provided some support for this idea (Watkins et al., 2005). Furthermore, Algoe and Haidt (2009) found that gratitude is related to the "other-praising" emotions of elevation and admiration, and these three states seem to be distinct from other positive emotions. Is gratitude more strongly correlated with some positive emotions than others? I know of no published study that has looked directly at this question, but the answer would have some interesting implications for our understanding of gratitude. For example, some have proposed that gratitude is a subtle emotion, but some evidence suggests that it might be an invigorating emotion (Emmons & McCullough, 2003). More research on the subjective qualities of grateful emotion is needed.

The duration of gratitude appears to be like other emotions. Although this has been a neglected area in emotion research, Verduyn, Delvaux, Van Coillie, Tuerlinckx, and Van Mechelen (2009) found that like other emotions, gratitude lasts longer when the event is judged to be more important. Interestingly, they found that one's initial intensity of experience also predicted duration, independently of the judged importance of the provoking event.

Although many different definitions have been presented on the basic components of emotions, all theorists seem to agree that every emotion is associated with action tendencies: each emotion prepares us to act in certain ways. When one is afraid, one feels like running, when one is angry, one has the urge to fight. Fredrickson (1998) has pointed out that this component of emotions is based on the prototype of negative emotions. She then argues (rightly I think) that consideration of positive affects leads us to the conclusion that we must consider thought tendencies as well as action tendencies when studying emotion. Thus, a comprehensive description of the emotion of gratitude should include thought/action tendencies that are associated with this state. When one is grateful, what does one have the urge to do or think? In a nutshell, the thought/action tendencies of gratitude can be characterized as prosocial, but I think it is important to flesh out this conclusion.

In one study, we compared the action tendencies of gratitude to indebtedness ("feeling obligated to repay") in a vignette study (Watkins et al., 2006). We investigated 26 action tendencies and reduced these to 6 factors. First, supporting Fredrickson's *Broaden and Build* theory of positive emotions (1998), we found that gratitude was positively correlated to the number of action tendencies endorsed ($r = .44$), but indebtedness was not ($r = .08$, *ns*). Thus, the more grateful a person reported that they would be in response to the situation in the scenario, the more thought/action tendencies they tended to endorse. This is consistent with Fredrickson's idea that in contrast to negative emotions, positive emotions like gratitude tend to broaden a person's repertoire of thought/action tendencies. Second, we found that gratitude was positively correlated with prosocial thought/action tendencies, and was negatively correlated with antisocial thought/action factors. Gratitude was most strongly correlated with the factor we called "Adoration" ($r = .57$), but was also moderately correlated with "Approach" ($r = .40$) and "Yielding" ($r = .30$).

The Adoration factor included items such as "I would feel like praising my friend to others when my friend was not present", "I would feel like expressing my happiness to my friend", and "I would feel like giving my friend a gift." Moreover, the more grateful a person reported that they would be, the less likely they reported *antisocial* thought/action tendencies such as doing things actively or passively against their benefactor. Thus, not only does gratitude promote prosocial action tendencies, it also seems to inhibit antisocial thought/action tendencies. This was not the case with indebtedness. Whereas gratitude was negatively associated with the total number of antisocial thought/action tendencies endorsed ($r = -.25$), indebtedness was positively associated with the number of antisocial thought/action tendencies ($r = .20$).

Although vignette studies such as this have fallen out of favor in recent years because of questions about subjects' ability to make judgments in imagined scenarios, I believe that this methodology still has a role to play in gratitude research. Because appraisals can be carefully controlled in vignette studies in ways that cannot be controlled in studies that use actual benefits, this methodology will still prove to be useful. It is certainly true however, that in order to establish the prosocial nature of gratitude thought/action tendencies, studies that use actual benefits are needed. Fortunately, a number of studies have found that indeed, when a benefit is provided that produces gratitude, prosocial responses are likely (e.g., Bartlett & DeSteno, 2006; Grant & Gino, 2010; for a review, see McCullough, Kilpatrick, Emmons, & Larson, 2001). Indeed, the prosocial characteristics of gratitude are so notable that one of the prominent theories of gratitude has argued that gratitude is essentially a moral emotion (McCullough et al., 2001). This is an important aspect of gratitude and there is too much data to adequately review it here. Indeed, the prosocial aspect of gratitude may be one of the most important mechanisms that explains why grateful people tend to be happy people. Grateful people may tend to be happier because of the many social benefits that gratitude offers. Because of the importance and extensive results that speak to this issue, I have devoted an entire chapter to the prosocial components of gratitude (see Chap. 8).

How do lay people define gratitude? Recently, Lambert, Graham, and Fincham (2009) conducted an extensive investigation of lay conceptions of gratitude. In a series of studies they demonstrated that lay conceptions of gratitude conform to a prototype: gratitude is not so much determined by a rigid set of category rules, as it is by a compendium of central features. They also present evidence that people conceive of gratitude in at least two ways: *benefit-triggered gratitude* and *generalized gratitude*. Their evidence did not suggest that these were two qualitatively different types of gratitude, but people did report stronger gratitude responses to generalized gratitude scenarios than they did to the more specific "benefit-triggered" vignettes. In my view these are two ends of a dimension from more time-limited and specific benefits to more general benefits that are not limited by time and may in fact consist of a number of benefits. For example, one may be grateful for a salary raise (a specific or "benefit-triggered" gratitude event), or they may be grateful for their spouse (not a time limited benefit, and one's spouse probably represents many benefits). This work highlights the importance of

allowing for a broad conception of the "good" that one is "affirming" in a grateful response, and their paper also brought forth the importance of distinguishing between gratitude as an emotional state and as an affective trait. I now turn to considering the affective trait of gratitude.

2.3.2 Defining Gratitude as an Affective Trait

Following Rosenberg's (1998) levels of analysis approach to emotion, gratitude should consist of an affective trait as well as an emotional state. Thus, a person who is high on the affective trait of gratitude should experience gratitude easily and often. In an important seminal article in the science of gratitude, McCullough, Emmons, and Tsang defined the grateful disposition as "a generalized tendency to recognize and respond with grateful emotion to the roles of other people's benevolence in the positive experiences and outcomes that one obtains" (2002, p. 112). It is difficult to improve on this definition, and I will follow their understanding here.

Moving beyond the basic definition of trait gratitude, we may ask, "What makes a person high in the disposition to gratitude?" In this context, McCullough et al. define "facets" of trait gratitude that are elements of this trait. The first facet is *intensity*: grateful people should experience gratitude more intensely after receiving a benefit than less grateful individuals. The second facet of *frequency* refers to how frequently a person experiences gratitude. Clearly, a grateful person should experience grateful emotions more frequently than those less grateful. McCullough and colleagues identify the third facet as *span*. "Span refers to the number of life circumstances for which a person feels grateful at a given time" (p. 113). At any given moment, grateful people may feel thankful for a number of different sources of benefits in their lives. Grateful people do not limit their gratitude to one area of their lives (e.g., their occupation), but feel grateful for a number of different life circumstances (e.g., friends, family, health, etc.). Finally, McCullough et al. introduce the facet of *density*. This refers to the number of different benefactors a person may feel grateful for in the context of a positive outcome. Thus, when a grateful person graduates from college she will likely feel grateful towards her parents, her professors, her advisors, and her fellow students. One implication of this facet is that there may be a closer tie between the emotions of pride and gratitude in grateful people. This is because when one achieves an accomplishment, they obviously attribute the outcome to their own contribution, but because of the facet of density a grateful person should be more likely to affirm other sources that contributed to their achievement as well. Many years ago when I was awarded an NIH grant I felt proud of this accomplishment, but I also felt deeply grateful; grateful to the grants department, grateful for the advice of colleagues, grateful for the time my family allowed me to work on the proposal, and even grateful to the committee that approved the project. I am not aware of any research that has directly investigated this association between gratitude and pride, but at least one study has shown that narcissists seem to have a more narrow density in their attributions for the success of a cooperative effort. Those high in narcissism

are more likely to attribute their success to themselves, and not to the contribution of their partner (Farwell & Wohlwend-Lloyd, 1998). To summarize, McCullough et al. submit that people high in the disposition of gratitude should show facets of *intensity* (they show a higher intensity in their grateful experiences), *frequency* (they should experience gratitude more frequently), *span* (they are more likely to feel grateful for a number of different life circumstances at any moment), and *density* (they are more likely to attribute successful outcomes to a wider variety of sources).

But what makes a person to be more likely to have these facets? What attitudes might be at the foundation of the gratitude facets of intensity, frequency, span, and density? In developing our approach to dispositional gratitude, we attempted to develop a simple theory of the attitude that is foundational to dispositional gratitude (Watkins et al., 2003). In brief, we argued that a grateful person has an appreciation for all of life as a gift. We went on to define three basic components of this attitude, which I have more recently called the "*three pillars of gratitude*" (Watkins, 2009). These are presumed to be three subordinate facets that contribute to and comprise the superordinate factor of trait gratitude (the attitude that all of life is a gift). First, we argued that grateful individuals should have a strong *sense of abundance*, or put negatively, they should have a lack of a sense of deprivation. Thus grateful people should feel that life has treated them well (indeed, the gifts of life have been abundant), and they will not feel that life has treated them unfairly or that they have been deprived of the benefits that they feel that they deserve. Secondly, people high in the grateful disposition should *appreciate simple pleasures*. If all of life is a gift, then grateful people should show more appreciation for the day-to-day benefits that come their way. Put differently, a grateful person should not have to wait for a trip to Maui to feel grateful. Finally, grateful people should be characterized by what we called *social appreciation* or *Appreciation of Others*: they recognize the importance of appreciating the contributions of others to their lives, and they also recognize the importance of expressing their appreciation. In sum, we argued that the attitude underlying trait gratitude should be characterized by a sense of abundance, an appreciation for simple pleasures, and social appreciation. I have spent some space describing these two approaches to trait gratitude not only to give a full understanding of the affective trait of gratitude, but also because an understanding of these approaches is critical to the development of the two measures that are most frequently used to assess dispositional gratitude: the Gratitude Questionnaire (GQ-6) and the Gratitude, Resentment, and Appreciation Test-Revised (GRAT-R). These two measures will be described in detail in the section below concerning the assessment of gratitude.

The disposition of gratitude is probably most similar to what has been described as the virtue of gratitude. As defined by Peterson and Seligman (2004), a virtue or character strength should be a trait, and thus a person high in the affective trait of gratitude would be viewed as possessing the virtue of gratitude. In this, trait gratitude may be viewed more as the being of gratitude whereas grateful emotion is related to the feeling of gratitude. Thus, those high in trait gratitude will often be referred to as grateful people. In this text I will use the term "grateful people" or a "grateful person", and by this I mean someone high in the affective trait of gratitude.

In their "un-DSM" (their manual of character strengths and virtues), Peterson and Seligman grouped gratitude with the strengths under the virtue of "transcendence." According to their approach, gratitude—along with other transcendence strengths such as hope, spirituality, appreciation of beauty, and humor—should lead to the development of the virtue of transcendence. This makes some sense, and as will be described later, strong relationships have been found between gratitude and various measures of hope, spirituality, and the appreciation of beauty. But one might also question whether gratitude would better be classified with the prosocial character strengths of "humanity and love", or even with the strengths of "temperance" (self-control, humility, forgiveness). Just as with the taxonomy of the DSM, empirical work needs to provide confirmation for the structure of strengths and virtues. I am not aware of much work on this issue, but in one study investigating judgments of the importance of various virtues (Van Gelder, Elster, & Watkins, 2006) we found that gratitude did not fall in a factor with the transcendent virtues, rather it tended to cluster with what we called "Strengths of Learning" (love of learning, curiosity, perspective, appreciation of beauty, and bravery). We found that this was the most curious factor of the four that emerged. It should be pointed out that in this study we asked subjects to rate the importance of these virtues for themselves and for others. Although this is likely to be related to people's actual self-rating scores on these strengths, they are certainly not synonymous. It is one thing to say that gratitude is an important virtue, it is quite another to report that one is high in the trait of gratitude. More research is needed on the clustering of character strengths so that we may have a more empirically driven taxonomy of virtue. It will be interesting to see how gratitude clusters with other strengths, and this should be information important to an understanding of the nature of gratitude.

2.3.3 Defining Gratitude as a Mood

Although a fair amount of work has been directed toward defining and investigating gratitude as an affective trait and as an emotional state, little work has attempted to study grateful moods. This is not atypical in emotion research however; often the subject of mood states is not even considered in research studies of emotions. This is probably because much of emotion research has not really distinguished emotion and mood states, and often these two terms are used interchangeably in the literature. When I first read Rosenberg's (1998) treatise on the three levels of analysis needed for emotion research, I quite frankly wondered whether we really needed the intermediate territory of moods. But the more I have considered this issue, the more I believe that we need to look at affective states at the level of moods as well as emotions. To reiterate Rosenberg's approach, both emotions and moods are transient states (in contrast to affective traits), but moods are longer in duration and should be more in the background of awareness than emotional states. In addition, if one is in a particular mood, this should facilitate the experience of the congruent emotional state, and emotional states may result in corresponding

lingering moods. Translating these ideas to gratitude then, grateful moods should be more enduring than grateful emotions, they should be more in the background of awareness, and if one is in a grateful mood this should facilitate the experience of grateful emotions. Additionally, grateful moods should not be about something in particular, thus grateful moods may be more related to the *span* facet of the grateful disposition. In this way, moods of gratitude may be more akin to what Lambert and colleagues (2009) have called "generalized gratitude." Furthermore, experiencing a grateful emotion may prompt a grateful mood. Those high in the affective trait of gratitude should be more likely to experience grateful moods. This might be because grateful moods are more likely to result from emotional experiences of gratitude in grateful people. To illustrate, when a grateful person is unexpectedly assisted on a project, they should experience gratitude just as most people would, but they should have more lingering effects of their grateful experience—the grateful person should be more likely to be in a grateful mood long after the benefit has occurred. On the other hand, it could be that trait gratitude has a more direct impact on grateful moods, i.e., grateful people are more likely to be in a grateful mood because of a direct effect of the trait on mood. Most of what I have outlined here is speculation drawing from Rosenberg's approach, but research has yet to investigate most of these ideas. Perhaps one of the reasons that we have not progressed in the investigation of grateful moods is because we have as yet to develop a valid measure of these states.

I am aware of only one investigation that has looked extensively at the "intermediate affective terrain" of grateful moods. In two studies McCullough, Tsang, and Emmons (2004) investigated grateful moods using a 3-week daily monitoring method. One may question whether these studies were actually investigating grateful moods or people's daily summaries of their grateful emotions (see my discussion of the assessment of grateful moods below), but I believe this paper still provides us with some valuable information about gratitude at the mood level. In general, the data supported many of Rosenberg's ideas as they may be applied to gratitude. First, on days where participants reported more gratitude-relevant events they also reported grateful moods that were greater than their typical day. Second, when individuals reported a higher average intensity in their gratitude emotion responses, they also reported more grateful moods. Third, on days where participants felt more gratitude in their moods than normal, they also reported that they were grateful to a greater number of people. All of these data are supportive of the Rosenberg approach, but because of the correlational nature of these studies the direction of causation cannot be determined. For example, it could be that the greater intensity of grateful emotional responses led to higher mood levels of gratitude, but it is also possible that because individuals were already in a more grateful mood, this facilitated more intense emotional responses of gratitude. It could be that a greater number of gratitude-relevant events created a more grateful mood, but it is also possible that because participants were already in a grateful mood, they noticed (and remembered) more gratitude-relevant events at the conclusion of the day. Whatever the interpretation, both directions of causality seem to be supportive of Rosenberg's approach.

Also supporting Rosenberg, people who were higher in trait gratitude (measured at the beginning and the end of each study), reported higher daily grateful moods. But for me, the reason for this relationship was somewhat unexpected. I proposed previously that people high in trait gratitude might report higher grateful moods because the trait of gratitude would lead to more intense gratitude emotional responses to benefits, and thus these events would be more likely to result in lingering grateful moods for grateful people. It appeared however, that the data supported more of a top-down effect: high trait gratitude seemed to directly contribute to greater moods of gratitude irrespective of the number of gratitude-relevant events and intensity of gratitude emotional responses. McCullough et al. found that people low in the affective trait of gratitude showed greater grateful moods on days in which there were a greater number of gratitude-relevant events and more intense emotional responses to these events. This was not the case for grateful people, however. In these individuals there was very little evidence that the number of gratitude inducing events or the intensity of grateful emotional responses enhanced their grateful moods. In other words, in contrast to less grateful individuals, the grateful moods of grateful people did not seem to be as situationally dependent. Grateful people reported higher levels of grateful moods regardless of the number of benefits that came their way. Stated differently, the grateful mood of those high in trait gratitude seemed to be more of a top-down effect (their moods were primarily determined by their disposition to gratitude), whereas the gratitude moods of less grateful individuals showed more of a bottom-up effect (their moods were more driven by the events of the day). There may be a problem with these results in that it is more likely that the correlations between events and moods may have been inhibited in those high in trait gratitude because of a restriction in range in grateful moods. In other words, because the daily moods of grateful people were generally higher in the first place, they had less room to improve on days with many gratitude-relevant events, and thus this restriction of range may have hidden relationships between events and mood.

This unexpected result may have important implications. Grateful people appear to have greater moods of gratitude almost regardless of the number of gratitude-relevant events during the day, but it seems that for those less grateful, they need to experience specific benefits to elevate their grateful mood. Why? One interpretation might be that the moods of grateful people tend to be based on more general benefits that are not time-limited. For example, they may be more grateful because they are grateful for good things like their spouse, their job, their friends, or even for life itself. This seems to be similar to Lambert and colleagues (2009) concept of "generalized gratitude." In contrast, grateful moods of less grateful individuals may be more dependent on specific and recent benefits. Thus, their gratitude may be more of a "What have you done for me lately?" response. If this is indeed the case, it seems clear that being grateful for more consistent benefits that are not time limited would be more adaptive, and this might be why grateful people tend to have higher grateful moods, and they tend to be happier as well. Whatever the case, these results are very helpful to our understanding of grateful moods, and this is an important level of analysis in gratitude because grateful moods are likely to have

a greater influence on a person's adaptive functioning than grateful emotions (see McCullough et al., 2004). It is surprising that more studies have not attempted to investigate moods of gratitude, and this appears to be a needed area of research.

2.4 Gratitude and Appreciation

Because some evidence has suggested that gratitude and appreciation are a unitary trait, discussion of the relationship between gratitude and appreciation is warranted (Wood, Maltby, Stewart, & Joseph, 2008). Even if gratitude and appreciation turn out to be distinct constructs, I submit that an exploration into appreciation is important to a full understanding of gratitude. First, it is important that we have a clear understanding and definition of appreciation. Adler and Fagley (2005) defined appreciation as "acknowledging the value and meaning of something—an event, a person, a behavior, an object—and feeling a positive emotional connection to it" (p. 81). This is an interesting definition, for it seems to define appreciation as a cognitive pattern as well as an emotion. I prefer to see appreciation as a pattern of cognitive processing, by which certain emotional responses (including gratitude) may result. In this sense I found the approach offered by Janoff-Bulman and Berger (2000) to be very helpful. I believe this to be an important seminal chapter that advances our understanding of appreciation. They defined appreciation as simply a cognitive process that involves increasing the subjective value of something. Therefore, when one psychologically appreciates something, one appraises it as having more value than it did before. This follows nicely from a literal understanding of the word appreciation. For example, when a home increases in value we say that the home's value has appreciated. Similarly, when we grow to appreciate classical music, the value that we attach to that genre of music has increased compared to how we appraised it before this appreciation took place. So in appreciation, we reappraise something so that it has more value in our eyes.

Wood et al. (2008) conducted the most extensive study into the relationship between appreciation and gratitude. In two studies Wood and colleagues compared three different measures of gratitude and appreciation: the GQ-6, the GRAT (two scales specifically designed to measure trait gratitude), and the Appreciation Scale (designed to measure the more global construct of appreciation as defined above; Adler & Fagley, 2005). The general finding of these studies was that a one-factor model provided the best fit for these measures. Thus, apparently gratitude and appreciation should be viewed as a unitary construct. In evaluating these results, it is important to highlight that these studies were conducted at the *affective trait* level of analysis. It is altogether possible that gratitude and appreciation are basically the same affective traits, but at the emotion level of analysis, they are in fact quite different (and appreciation per se, may not be an emotion at all). Second, when evaluating the items contained in the Appreciation Scale, it is difficult to see how the items and scales on this measure are tapping anything that is clearly distinct from gratitude, thus it is not surprising that these scales form a more unitary

factor with gratitude. Of the eight subscales on the Appreciation Scale, only one is titled "gratitude", and this scale relates more to the practice of gratitude than to grateful affect (e.g., "I say please and thank you"). Items on the other Appreciation Scale subscales seem to relate directly or indirectly to gratitude. Examples include, "I count my blessings for what I have in this world", "I have moments when I realize how fortunate I am to be alive" (recall that often people use "fortunate", "lucky", and "grateful" interchangeably, Teigen, 1997), "I give thanks for something at least once a day", "The problems and challenges I face in life help me to value the positive aspects of my life", and "I remind myself to appreciate my family." All of these patterns of appraisal are likely to lead to gratitude. Indeed, almost all of the items on this scale refer to appreciating benefits that arise from outside sources—an appraisal that should lead directly to the experience of gratitude.

The personality trait that encourages one to appreciate positive things in one's life is likely to be very similar to trait gratitude, but I propose that both of these traits should be seen as the affective traits most relevant to the emotion of gratitude in terms of Rosenberg's (1998) levels of analysis approach. Appreciation therefore, should be seen more as a specific pattern of cognitive appraisals (appraisals that involve increasing the value of something), and in this sense appreciation is necessary but not sufficient for the production of the emotion of gratitude. In addition to increasing the psychological value of something (i.e., appreciation), one must also appraise the benefit as coming from the intentional benevolence of an outside source in order to experience gratitude.

It seems to me that much could be done to develop a psychology of appreciation, and because of the importance of appreciation to gratitude, advances in our understanding of the psychology of appreciation would move the science of gratitude forward. Specifically, what are the cognitive mechanisms that lead one to reappraising something so that it has increased value? People tend to take consistent benefits for granted because of the emotional *law of habituation* (Frijda, 1988). But an event may take place so that once again one recognizes the value of a benefit that has heretofore gone unnoticed or unappreciated. Indeed, Janoff-Bulman and Berger (2000) argued that this might be what traumatic events accomplish. I will describe these processes in more detail in Chap. 9, but because of the importance of the cognitive processes of appreciation to gratitude, I believe that more theoretical and empirical work on the construct of appreciation would be helpful.

2.5 Measuring Gratitude

In order to effectively investigate a variable, researchers must be able to reliably measure the construct. We now turn to instruments and issues in the measurement of gratitude. I first describe self-report instruments, and I will follow Rosenberg's (1998) typology in describing emotional state, affective trait, and then mood state measurement approaches to gratitude. I shall then turn to behavioral measures of gratitude, and will conclude this section with a discussion of the potential use of indirect assessments of gratitude.

As with most emotions, the most developed and utilized measures of gratitude are self-report. These measures are relatively easy to use and are efficient. In the measurement of grateful emotion, one simple but effective approach has been used. McCullough et al. (2002) used three adjectives (grateful, thankful, and appreciative) that the participant responded to on a Likert-type scale. This is often referred to as the *Gratitude Adjectives Scale* (GAS). Although some researchers have used only "grateful" and "thankful" in their assessments, it seems efficient enough to include all three. Internal consistency on this short measure is quite good. In their initial study McCullough et al. reported an alpha of .87, and when we have used this measure in our work we have found similar internal consistencies. If used as a measure of emotional state, it is important that participants be instructed to report on their current emotional state (e.g., "Indicate to *what extent you feel that way right now, that is, at the present moment*, not necessarily how you feel generally or how you feel on average."). In our work, we have successfully used these adjectives with the PANAS-X or the shorter PANAS (Watson, Clark, & Tellegen, 1988). The advantage of this approach is that it can hide the intent of the researcher to measure grateful affect, and the psychometric properties of the scale do not seem to suffer (see for example, Frias, Watkins, Webber, & Froh, 2011, alpha = .92).

Extensive work has also been accomplished in developing measures of the affective trait of gratitude. The two measures that have been used most in the literature are the GQ-6, developed by McCullough et al. (2002), and our GRAT (Watkins et al., 2003). Clearly, the GQ-6 has been used most by researchers. It is easy to administer and score, and has excellent psychometrics. The internal consistency of the GQ-6 is good (.82 and above), and it correlates moderately to strongly with various emotional well-being measures (McCullough et al.). Most notably, the GQ-6 correlates more strongly with positive than negative affectivity; something that would be expected if this is indeed a measure of a positive emotional disposition. The authors developed this measure to tap the four facets of gratitude that I described earlier. They began with 39 items but were able to reduce the items to 6 following their intent to create a unidimensional instrument. Their research has shown that indeed, a one-factor model provides the best fit for the GQ-6. One might question whether the GQ-6 is more of an assessment of grateful mood than trait gratitude, and it does appear to be more affectively loaded than the GRAT. It is clear however, that in terms of measuring gratitude at the level of affective trait, the GQ-6 has the strongest data supporting its use.

We initially developed the GRAT to measure a hierarchical attitude that we felt was most conducive to experiencing the emotion of gratitude frequently. As described earlier, this was the attitude that all of life was a gift. We wrote items (initially 54) that we felt would best tap the three lower order traits (Sense of Abundance, Appreciation of Simple Pleasures, and Social Appreciation) that contribute to the attitude that all of life is a gift. Our final instrument consisted of 44 items that showed a three-factor structure as we proposed (Watkins et al., 2003). More recently, we revised the GRAT and also introduced a shorter 16-item version (Thomas & Watkins, 2003; see also Diessner & Lewis, 2007). The short version has good internal consistency (alpha = .92) and it approximates the full version quite

well ($r = .97$). This shorter version of the GRAT appears to retain the factor structure of the original, and because it is more efficient to administer than the full GRAT, researchers may prefer this tool.

Although the GQ and the GRAT appear to be effective tools to assess trait gratitude, they are not without their problems. Both of these measures are negatively skewed. This is likely because, like other positive psychology measures, people like to see themselves in a positive light and thus present themselves in this manner. In my view, the intent of the GRAT is a little less obvious than the GQ. Thus, participants are probably more likely to know that gratitude is being assessed with the GQ. But the GQ-6 is used much more than the GRAT and has more data supporting its use. The self-presentation issues with these scales remind us of all of the problems with self-report measures. Although these questionnaires are economical and easy to use, researchers should consider other non-self-report measures of gratitude, and I will discuss these approaches below.

Two additional self-report scales deserve mention. The gratitude subscale on the Virtues in Action (VIA) character strengths questionnaire appears to tap gratitude at the affective trait level of analysis (Peterson & Seligman, 2004). If one is interested in comparing or contrasting gratitude with other character strengths, this would appear to be an ideal measure. However, it does not appear that psychometric information is available on the subscales of this measure. The Appreciation Scale devised by Adler and Fagley (2005) offers the assessment of a number of facets of the general trait of appreciation. As I suggested earlier however, I am not convinced that this scale taps anything that is clearly distinct from trait gratitude (see Wood et al., 2008). That being said, this questionnaire has a number of interesting subscales that might fit specific gratitude research questions. Each of these measures of trait gratitude has their strengths and weaknesses, and it might be interesting to see if a measure that combines the strengths of these questionnaires could be developed.

As stated earlier, little research has attempted to measure gratitude at the mood level of analysis. The one exception is the McCullough et al. (2004) article that I described earlier. In two studies, they measured grateful mood by asking subjects to what extent they felt grateful that day. Participants responded on a 5-point Likert-type scale (1 = very slightly or not at all; 5 = extremely). To determine the grateful mood of each day, subjects responded to the three gratitude adjectives (grateful, thankful, and appreciative), that McCullough et al. (2002) had previously used for assessing the emotional state of gratitude. Internal consistency of this measure was excellent (Study 1: $\alpha = .92$; Study 2: $\alpha = .90$). Although this appears to be the only attempt in the literature to assess grateful mood, I wonder whether this approach taps gratitude at the mood level, or were subjects providing something of a summary of their gratitude emotional experiences of the day? When a subject judges how grateful they felt that day, do they assess what their general background mood was like over the course of the day, or do they recall grateful emotional experiences throughout the day and base their assessment on these experiences? Based on these studies, it is not possible to ascertain how subjects were making these judgments, and it is altogether possible that some people made one type of judgment while others made another. At present however, this appears to be the best approach that

we have. In my judgment, issues surrounding gratitude at the mood level of analysis may prove to be very important when considering the contribution of gratitude to well-being, but it appears that for the field to move forward in this area we need advancements in the assessment of grateful mood.

Some researchers have used behavioral measures of gratitude. For example, "thank you" responses to favors such as opening a door (Okamototo & Robinson, 1997) or giving candy (Becker & Smenner, 1986) have been interpreted as behavioral markers of gratitude. Other studies have taken reciprocal responses to benefits as indicators of gratitude. The advantage of these measures is that they are not subject to problems with self-report such as self-presentation biases. The major disadvantage however, is that one cannot be sure whether the person is exhibiting the grateful behavior out of gratitude, politeness, or a feeling of indebtedness. For this reason, if a researcher is clearly interested in investigating the state of gratitude, it is probably not wise to use behavioral measures in isolation. However, behavioral measures may provide useful information when used with self-report measures.

Because of the many problems inherent in self-report, there is great potential in the development of indirect measures of gratitude. One direction would be to follow the approach of Greenwald and associates, and develop an "implicit attitudes test" (IAT) of gratitude (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). There would be many advantages to developing such a tool, but I have my doubts as to whether a successful tool of this nature could be developed for gratitude. First, the IAT tends to rely on basic good/bad judgments of various stimuli. While this is a good approach on issues such as race and one's judgments about one's self, it is more difficult to see what kind of good/bad responses would relate to the trait or state of gratitude. It seems that gratitude involves a more nuanced response. Second, I am aware of several attempts to develop IAT type measures of happiness, without much success. I believe however, that the development of other indirect measures of gratitude is possible, and these assessments should provide useful additions to self-report measures. For example, Farwell and Wohlwend-Lloyd (1998) had subjects report their attributions for the success of a shared task. They compared participants' attributions of their own ability and effort to the ability and effort of their partner. Indeed, the more subjects felt that the task success was due to their own versus their partners' ability and effort, the less grateful they felt. Perhaps a standardized task could be developed that follows this approach. For example, one could follow the approach of Baumeister and Ilko (1995), who asked participants to write about a major success experience. One could then assess participants' attribution for the success, with the idea that attributions to others for the success would be more likely to be exhibited by grateful people. I would be quick to add that it would be important to assess attributions to others independently from attributions to the self. It is not that grateful people never take any credit for success in their life, but rather that they should be much more likely to attribute their successes to the contributions of others as well.

Another useful indirect assessment of gratitude might be pursued through memory measures. For example, Seidlitz and Deiner (1993) found that happy people tend to recall more positive events from their lives than unhappy people.

Diener suggests that this could be used as an indirect assessment of happiness. We have also found that grateful people tend to recall more positive events from their past (Watkins, Grimm, & Kolts, 2004). One could simply ask participants to recall as many "blessings" as they could for a 3-min period. There would need to be considerable work accomplished in the development of such a measure. For example, I would recommend limiting the time frame for recollection to the last 3 months, but research would need to determine which time frame would be most sensitive. Additionally, it would be interesting to know whether this is a better measure of gratitude at the trait, mood or state level. Memory measures such as these are easy to administer, and avoid many of the self-presentation issues associated with self-report.

In sum, there have been several successful self-report measures of gratitude that have been developed. When measuring the emotional state of gratitude however, it is difficult to know whether the tests used are measuring emotion or mood. It seems that the development of valid mood measures of gratitude would be a significant advance for the field. There is also great potential for the development of indirect measures of gratitude. But in the final analysis, the best assessment of gratitude is likely to be found in a multi-method approach where self-report, behavioral, and indirect measures of gratitude are used. I am not aware however, of any accepted way of combining these diverse assessments of gratitude into a composite measure, and a standardized multi-method assessment of gratitude would be a significant development for the science of gratitude.

2.6 The Debt of Gratitude: Distinguishing Gratitude from Indebtedness

Until recently, many social science scholars treated gratitude and indebtedness as synonymous states. If gratitude is associated with a felt "obligation to repay" then there may be a significant downside to gratitude. This aversive aspect of gratitude is well illustrated in the following passage by Hobbes (cited in Greenberg, 1980, p. 17):

> To have received from one, to whom we think ourselves equal, greater benefits than there is hope to requite, disposeth to counterfeit love; but really secret hatred; and puts a man into the estate of desperate debtor. . . . For benefits oblige; and obligation is thraldom; and unrequitable obligation, perceptual thraldom; which is to ones equal, hateful.

In this passage, Hobbes appears to equate gratitude with indebtedness. If gratitude and indebtedness are essentially equivalent emotions, gratitude may not be as pleasant an experience as is commonly assumed. Indeed, it appears that some in the social sciences have equated gratitude and indebtedness (e.g., Komter, 2004).

The reduction of gratitude and indebtedness into a single construct may be due to the influential work of Marcel Mauss (1925/2002), who argued that in pre-capitalist societies the community was held together by reciprocity. Thus,

expressions of gratitude are viewed as simple exchanges for benefits to restore social balance in obedience to the *norm of reciprocity* (Gouldner, 1960). In the past, psychology appears to have followed the lead of other social scientists. For example, in his earlier writings Greenberg treats gratitude and indebtedness as synonymous (Greenberg, 1980). Later however, Greenberg seemed to recognize the inherent problems with this view. In an important seminal study of gratitude, Tesser and colleagues combined gratitude and indebtedness into a composite dependent variable because they were significantly correlated (Tesser, Gatewood, & Driver, 1968), although they did not report the strength of association. In our experience, if there is any correlation between the states of gratitude and indebtedness, it is either trivial (less than .20) or non-significant. As a psychological construct, Greenberg first defined indebtedness as "a state of obligation to repay another" in the context of the receipt of a benefit from another (Greenberg, p. 4). Greenberg goes on to argue that indebtedness is an emotional state of "arousal and discomfort" (p. 4), and that when one is in this state one is alert to opportunities to reduce this discomfort. If gratitude and indebtedness are essentially the same construct, or if they are strongly related states, this would have important implications regarding the supposed benefits of gratitude.

Early research suggested that at least at the phenomenological level, these two constructs are not equivalent. For example, Greenberg, Bar-Tal, Mowrey, and Steinberg (1982) found that 92 % of their research participants said that being "indebted" to others was an unpleasant state, but a Gallup poll indicated that the vast majority of people feel that gratitude is a happy state (Gallup, 1998). It is reasonable to suppose however, that these subjective differences between gratitude and indebtedness are an artifact of Western individualistic cultures. Some have suggested that in more collectivist cultures gratitude and indebtedness are more intertwined, and thus gratitude may take on a more unpleasant emotional hue, or conversely indebtedness may feel more pleasant. Although more cross-cultural research needs to be accomplished here, the little data that we have on the subject suggests that those in Eastern cultures experience gratitude and indebtedness similarly to those in the West. One study found that indebtedness is an undesirable state to individuals in Eastern cultures. Naito, Wangwan, and Tani (2005) investigated feelings evoked by a favor and found that for both Japanese and Thai students, indebtedness loaded strongly on their negative affect factor (along with "shame", "regret", and "uneasiness"). "Thankfulness" however, loaded strongly on the positive affect factor. At least in the minds of most people, gratitude and indebtedness are experienced very differently (see also Gray, Emmons, & Morrison, 2001).

Not only do indebtedness and gratitude feel differently, there is also evidence to suggest that their thought/action tendencies are very different. For example, across two studies we found that gratitude was moderately to strongly correlated with positive approach responses to the benefactor, and was negatively associated with antisocial/rejecting/avoidance tendencies (Watkins et al., 2006). Thus, gratitude clearly promotes prosocial action tendencies, and seems to inhibit antisocial

behaviors. Indebtedness on the other hand, was not clearly associated with any thought/action tendencies. Most of the correlations with feeling "obligated to repay" were non-significant. Indeed, in Study 1 although trivial (and non-significant) correlations were found with indebtedness and some prosocial action tendencies, the correlations with antisocial correlations were also positive and of a similar magnitude. It was almost as if participants who felt indebted to a benefactor were unsure of how to think or act toward them.

Our study referred to above (Watkins et al., 2006) showed that the cognitive appraisals that lead to gratitude are distinct from indebtedness. The primary purpose of the two studies reported in this article was to attempt to dissociate gratitude from indebtedness by manipulating the return expectations of the benefactor. This followed from Heider's idea (1958) that a receiver of a benefit would like to believe that her gratitude is self-motivated or freely chosen, rather than a response that is required from the person providing the favor. Thus, Heider predicted that if a beneficiary felt that her gratitude was required from the benefactor, she would actually be less grateful. Although Heider did not discuss indebtedness, one may infer that he would predict that feelings of indebtedness would increase with increasing expectations of return from the benefactor. We investigated this theory in two vignette studies. We used vignettes because we felt that perceived expectations of a benefactor would be very difficult to control in an actual gift situation. All participants read a story about a benefactor helping them move, and then participants were asked how they would respond emotionally to this situation with a number of emotions, including gratitude and indebtedness. The stories were manipulated by changing the last few sentences in the scenario. In the "no expectation" condition participants were told "As you consider your friend's help, you know them well enough that you feel your friend does not expect any kind of return favor." In the moderate expectation condition we informed participants "As you consider your friend's help, you remember that others have told you that when this friend helps anyone, he or she expects a clear expression of thanks, usually in person and in the form of a card or written note." In the "high expectation" condition, we told participants "As you consider your friend's help, you remember that others have told you that when this friend helps anyone, he or she expects a clear expression of thanks, usually in person and in the form of a card or written note, and they also expect a return favor. You happen to know that your friend is moving next Saturday." Consistent with our predictions, in both studies we found that with increasing benefactor expectations, gratitude decreased but indebtedness increased. Moreover, people in the "high expectation" condition reported that they would be less inclined to help their benefactor in the future than those in the "no expectation" condition. This presents a curious paradox of giving and gratitude: The more a giver expects in return, the less the receiver is likely to return the favor. Our results appear to affirm the observation of Rousseau: "Gratitude is a duty which ought to be paid, but which none have a right to expect." Although our findings were limited because of the use of a vignette methodology, it appears that studies using actual benefits are largely consistent with our results.

In three studies, Tsang (2006) also demonstrated significant differences between gratitude and indebtedness. Similar to our research, Tsang used a scenario methodology in Study 1. She found that people reported less gratitude in the scenario where the benefactor had ulterior motives for their gift. Indebtedness however, did not vary across the scenarios. Approaching this issue from a different angle, in Study 2 she had subjects recall either a benefit provided with "selfish" motives, or one that was provided with benevolent intentions. Indeed, participants reported that they were experiencing more gratitude in response to recalling the benevolent intentions memory. Once again however, there were no differences in indebtedness across the two types of recollections. Although in general Tsang's results were consistent with ours', the patterns of indebtedness were somewhat different. In Tsang's studies indebtedness went down somewhat in the "selfish" compared to the benevolent motives condition (although not significantly, and gratitude decreased much more). In both of our studies indebtedness increased somewhat in the conditions similar to Tsang's "selfish" motives conditions. There are several aspects that may explain the differences. In our study, our ulterior motive conditions were specifically designed to communicate increased benefactor expectations, not necessarily "selfish" motives. Also, Tsang only measured emotions relating to gratitude and indebtedness, whereas we measured a number of additional emotional states. One reason we included states other than gratitude and indebtedness was to hide the purpose of our study, and it is possible that subjects in Tsang's study were more aware of the study's purpose. But what should be highlighted here is that the pattern of results in Watkins et al. (2006) and Tsang (2006) are essentially the same. In fact, one unexpected result emerged from both articles. In all of these studies there was a fairly strong main effect for type of emotion. Across all scenario and recall type conditions, participants reported significantly more gratitude than indebtedness. This was somewhat of a surprise for us as we thought that the "high expectation" condition would produce more indebtedness than gratitude. Although indebtedness increased slightly with increased benefactor return expectations, indebtedness never approached the levels of gratitude reported by our participants. Although I am somewhat at a loss to explain this effect, perhaps a return to Heider's (1958) theory might help here. If people actually prefer to experience gratitude as a result of their own free will rather than experiencing it because others think they should, they might simply prefer to experience gratitude over indebtedness because this is another expression of their freedom. Even though it may be obvious that another person is attempting to put them in their debt, individuals may respond with gratitude anyway because they are "choosing" not to submit to the benefactor's expectations of them. Will this dominance of gratitude over indebtedness maintain in studies that use actual benefits in an experimental setting? Is the dominance of gratitude over indebtedness unique to Western individualistic cultures? Research that investigates these issues would be informative.

One additional factor has been found to dissociate gratitude and indebtedness: self-focus. In two studies Mathews and Green (2010) provided evidence supporting the notion that self-focus enhances indebtedness but inhibits gratitude. These authors argued that self-focus might impact gratitude and indebtedness differentially

because an internal focus directs attention away from the giver and the gift, and focuses attention instead on the inequity of exchange and thus may direct individuals more toward the *Norm of Reciprocity* (Gouldner, 1960). Indeed, in Study 1 they found that dispositional public self-focus was correlated with gratitude and indebtedness in opposite directions. Consistent with their predictions, public self-focus was negatively correlated with gratitude and positively associated with indebtedness. While this evidence offered support for their theory, in Study 2 they used an experimental paradigm to provide stronger support for their ideas. In this study they manipulated self-focus experimentally and then subjects recalled a recent benefit. Again supporting their theory, participants who recalled benefits in the self-focus condition reported more indebtedness than those in the control condition. With gratitude however, although means were in the expected direction there were no significant differences between the self-focus conditions. Although the authors concluded that their manipulation impacted indebtedness more than gratitude, there may have been some issues with their gratitude dependent variables. They used the GQ-6, which is primarily used to measure trait gratitude, and thus would be unlikely to show changes from a one-session experimental manipulation. Their second gratitude measure seemed to show a ceiling effect, and thus changes due to their experimental manipulation would be difficult to observe. The take away message from these studies was clear: self-focus differentially impacts gratitude and indebtedness, and these findings may have important practical implications for considering how to best enhance state and trait gratitude. To summarize the differences that we have seen between gratitude and indebtedness thus far, they are experienced very differently (gratitude is experienced positively, indebtedness is experienced negatively), they have distinct thought/action tendencies (gratitude is associated with prosocial tendencies while indebtedness is not), benefactor expectations and intentions differentially impact gratitude and indebtedness, and finally, self-focus appears to enhance indebtedness but inhibit gratitude.

In discussing the differences between gratitude and indebtedness it is important to highlight the few studies that have evaluated how gratitude and indebtedness might function in different ways. How do gratitude and indebtedness impact our relationships and well-being? Algoe, Gable, and Maisel (2010) investigated gratitude and indebtedness in romantic relationships in a 2-week daily experience sampling study. As expected, when someone received a thoughtful benefit from their romantic partner, this enhanced both gratitude and indebtedness. However, whereas the gratitude that resulted from beneficial interactions predicted enhanced relationship connection and satisfaction in their relationship on the next day, indebtedness did not. This result was obtained for both males and females. The results from this study add to a growing number of findings that support the theory that gratitude enhances relationship formation and maintenance. More about this in Chap. 8, but for now the important point is that gratitude appears to have clear benefits for relationships, but indebtedness does not. Moreover, gratitude and indebtedness show differential predictions of well-being. In one study, we developed a reliable trait indebtedness measure (assessing a person's disposition to feel indebted in response to benefits), and compared it with trait gratitude

(the GRAT-R) and also several measures of well-being (Van Gelder, Ruge, Frias, & Watkins, 2007). Consistent with our previous work, we found that gratitude was strongly and positively associated with subjective well-being (as measured by the Satisfaction with Life Scale and the Subjective Happiness Scale) and self-esteem. We also found a strong negative correlation between gratitude and depression (as measured by the BDI). Indebtedness on the other hand, showed moderate but negative correlations with our well-being measures. Trait indebtedness was positively associated with depression, and negatively correlated with both of our subjective well-being measures. Perhaps most importantly, trait gratitude and trait indebtedness were inversely related, suggesting that the tendency to experience indebtedness might actually inhibit one's ability to experience gratitude. This makes some sense: if one is constantly thinking about how they must pay someone back for a benefit, they should have difficulty focusing on the goodness of the gift and the giver, thus inhibiting a grateful response. One paradox in the literature should be pointed out however: although trait gratitude and indebtedness are negatively correlated, in scenario and memory recall studies grateful and indebted emotional states tend to be positively correlated (albeit small to trivial correlations). I will speak to this conundrum in more detail below.

The distinction between gratitude and indebtedness appears to be important, and there is much to be investigated on this front. It seems to me that researchers would be wise to include measures of indebtedness in gratitude research, and we now have reliable state and trait measures of this construct. Fredrickson's Broaden and Build model of positive emotion makes some interesting predictions about differences between gratitude and indebtedness (Fredrickson, 1998, 2004). Her theory predicts that as a positive affect gratitude should promote more diverse and creative forms of reciprocity, but indebtedness might narrow one's options for recompense. Also, if recompense is motivated out of indebtedness, it should be more likely to occur quickly after the original benefit, if it occurs at all. Other research involving gratitude and indebtedness could investigate this in the context of exchange versus communal relationships (Clark & Mills, 1979). One would think that indebtedness would be the more probable response in exchange relationships while gratitude should be more common in communal relationships. There appear to be a number of promising avenues of research in this area.

I have outlined a number of differences between gratitude and indebtedness that have been documented in the literature. The evidence seems clear that gratitude and indebtedness should be viewed as distinct states and traits. Gratitude appears to be largely adaptive, whereas indebtedness may not be. Is there then no debt of gratitude? Recall that the states of gratitude and indebtedness are often positively correlated and gratitude seems to motivate what appear to be behaviors of reciprocity. If there is a debt of gratitude, it does not appear that it is analogous to an economic debt. An economic debt is one where the debtor *must* recompense the lender, the lender establishes the debt, and it is a state the debtor desires to be free of (cf. Berger, 1975; Card, 1988; Wellman, 1999). Thus, although gratitude appears to be associated with a desire to recompense the benefactor, people report enjoying this feeling, and if the obligation is externally imposed the desire to return

the favor *decreases*. Could gratitude be tied to a sense of debt, but one in which the individual feels he or she is not obligated to repay? Does the *receiver* rather than the giver establish the debt of gratitude? The approach of moral philosopher Roberts might shed some light on this dilemma (1991a, 1991b, 2004). He defines gratitude as *a glad acceptance of our debt to one who has acted for our benefit*. In this view gratitude is expressed as a token of appreciation for the benefit and for the beneficiary's relationship with the benefactor, and the beneficiary gives back to their benefactor not because they have to, but rather because they want to. If this is the case, then the grateful person may respond with grateful recompense, not necessarily to discharge the debt (as in paying off an economic debt), but rather to establish and encourage the interdependent relationship with her benefactor. Perhaps Milton (1667/1999, p. 238) has best summarized this paradox of gratitude:

> A grateful mind
> By owing owes not, but still pays, at once
> Indebted and discharged.

2.7 Conclusion

In this chapter we have explored the "what" of gratitude; I have attempted to define and describe gratitude at several levels. In general, research seems to support Spinoza's definition of gratitude presented in the epigraph: "*Thankfulness or gratitude* is a desire or eagerness of love, by which we strive to benefit one who has benefitted us from a like affect of love." Although the field has progressed to a point where we appear to have a fairly clear understanding of the definition of gratitude at both the state and trait levels, I believe that there is much to be accomplished in exploring the "what" of grateful moods. Moreover, although we have good measurement tools for state and trait gratitude, more progress would be seen with advancements in the measurement of moods of gratitude. Another important issue that deserves the attention of researchers concerns *appreciation*. Clearly, gratitude and appreciation are closely linked, and theoretical and empirical work on the mental chronometry of appreciation would greatly enhance our understanding of gratitude. Indeed, it may be that a good understanding of what creates appreciation is crucial to our understanding of what causes gratitude, and we turn to this issue in the next chapter.

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Chapter 3
What Causes Gratitude?

"I would maintain that thanks are the highest form of thought; and that gratitude is happiness doubled by wonder."

–G. K. Chesterton

If gratitude is an adaptive emotion that is important to well-being, then it is important that we know what causes gratitude. Specifically, what situations and what cognitions give rise to gratitude? In this chapter I attempt to answer these questions. I will focus on the causes of grateful emotion, saving the discussion of the causes of trait gratitude for Chap. 11. First, I explore the typical situations that elicit gratitude. This is a fairly short section however, because as will become evident, the all-important antecedents of gratitude are grateful appraisals. It is the cognitive environment that provides the primary impetus for grateful emotions. After discussing several themes that emerge in the cognitive appraisals that precede gratitude, I will discuss several additional "cognitive conditions" that encourage gratitude: thoughts of our own mortality and aesthetic cognitions. I will then proceed to a more methodological note by discussing various experimental procedures that have been used to induce gratitude in the lab.

3.1 Activating Events of Gratitude

One of the basic components of any emotion is the characteristic activating events that lead to that emotion. Gratitude is no exception here, and research has found that certain situations are more likely to lead to gratitude than others. In general, the events that tend to activate gratitude can be characterized as benefits or favors. But as we will see, the critical aspect seems not to be the favor in itself, but rather how the beneficiary perceives and interprets the benefit. For example, many favors occur where the individual is unaware of the benefit, and obviously in these situations

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gratitude would not ensue. The nature of a beneficial event is also an important consideration, because research has found that gratitude results not only from events that contribute to one's well-being, but gratitude also occurs when one is aware of a negative event that could have taken place but did not. For example, if one misses a flight that ends up in an accident, they are likely to feel very grateful. Demonstrating this effect, Coffman (1996) found that the dominating emotion of survivors of Hurricane Andrew was gratitude. Even though hurricane survivors had suffered significant losses, they seemed to be very aware of the counterfactual that a much worse situation could have ensued. Teigen (1997) has also shown that these counterfactuals are some of the most powerful activators of gratitude. Teigen and Jensen (2011) demonstrated this effect again in Norwegian tourists who were exposed to the Tsunami disaster in Southeast Asia. The authors noted that these individuals could have viewed themselves either as "unlucky victims" or as "lucky survivors." In *downward counterfactuals* ("lucky survivors") individuals compare their situation with a situation that could have been much worse (e.g., "I could have been swept out to sea"), whereas an *upward counterfactual* ("unlucky victims") compares one's situation to one that could have been much better (e.g., "I could have taken this vacation last year" or "I could have gone to that other tropical resort"). But what is notable about the accounts of these tourists was the pervasive *downward counterfactuals* in the narratives of the survivors that produced gratitude, and the virtual absence of upward counterfactuals. In other words, they were much more likely to see themselves as "lucky survivors" rather than "unlucky victims." Thus, unpleasant situations that activate downward counterfactuals usually activate gratitude, and these may be some of the most powerful events that provoke gratitude. But even here, it is apparent that these situations could produce upward counterfactuals, but rarely do they seem to do this (see also Taylor, 1983). This emphasizes the importance of cognition in determining gratitude, and it is to this issue that we now turn.

3.2 The Cognitive Conditions of Gratitude: Recognitions of Gratitude

In discussing the cognitive appraisals that lead to gratitude I will characterize these cognitive patterns as "*The Recognitions of Gratitude*" (Watkins, 2001). I will review four distinct "recognitions" that make grateful emotion more likely. I like the term *recognition* because it best captures the nature of cognition that is foundational to gratitude. First, recognition is clearly cognitive, and by emphasizing the four recognitions of gratitude I am highlighting the importance of cognitive processing to grateful experience. Second, one of the literal definitions of recognition is the acknowledgement or appreciation of validity, or the identification of a person, thing, or situation because one has perceived it before. In this way, the cognitive processes fundamental to gratitude are very much like recognitions; they are identifications

of a familiar pattern of events and they are acknowledgements and appreciations of the validity of some important aspects of a situation. Third, note that in recognition one is literally "re-cognizing" some experience. When one appraises an event that leads to gratitude there is something familiar about the event, but there is also some re-cognizing or rethinking that the individual must accomplish in order to experience gratitude. If one processes a benefit in such a way that causes them to ignore or barely notice the event, then even though a benefit has occurred gratitude is unlikely to ensue. Finally, I believe that the cognitive science understanding of recognition as a type of memory task is informative as to the kind of cognitive processes involved with gratitude. In typical recognition memory tests subjects study a number of words and then are exposed to a second group of words, some of which are words they have studied and some they have not seen before. The subject's task is then to *recognize* which words are old and which are new. This memory task is often contrasted with free recall, where the subject is simply asked to list all of the words that they studied previously. Recognition is much more accurate, more sensitive to study, less effortful, and involves more automatic cognitive processes than free recall. Free recall on the other hand, probably involves more deliberative and controlled cognitive processes. In this way, I propose that the recognitions of gratitude tend to be fairly quick, less deliberate, involve more cognitive fluency, and are less effortful than other more recollective cognitive processes. To my knowledge, research has yet to test these hypotheses, but I submit that the cognitions that typically produce genuine grateful emotion are fairly quick, fluent, and effortless appraisals. Thus, in the typical gratitude response, appraisals are not likely to be characterized as deliberative cognitive processes. For example, one doesn't typically pause to deliberate about how good this benefit is and whether it was actually provided for their own well-being. This is not to say that gratitude exercises that use deliberative cognitive processing cannot lead to the more fluent cognitive appraisals that lead to gratitude, only that in the prototypical grateful emotion response the critical appraisals are more automatic and less deliberative. As I discuss these appraisals I will use the term "gift" to refer to any benefit conferred by an external source, and these benefits need not be limited to a specific time and place.

3.2.1 Recognizing the Gift

First, in order to experience gratitude one must recognize that a benefit has indeed occurred. Although this point almost seems to be so obvious as to be trivial, this is still an important principle because as emphasized above, we are unaware of many benefits that we receive from external sources. This is particularly true with benefits that are given consistently over a period of time. As the emotional *law of habituation* emphasizes (Frijda, 1988, 2007), people tend to "grow accustomed to their place", which means that as a benefit is consistently given, people tend to emotionally adapt to it and consequently fail to notice or appreciate the benefit. In fact, humans often fail to notice some of the most important benefits that they receive. They

have adapted to the benefits and hence cease to notice them because they are so consistently provided. We typically do not feel grateful for the air we breathe because this is a benefit that is almost always provided for us. Similarly, social benefits that are regularly provided by long-term partners are easily missed, and thus people cease to be grateful for significant social benefits in their lives. This may be one of the advantages of the encouragement to "count your blessings," because it forces one to notice faithful benefits that one might otherwise neglect (Emmons & McCullough, 2003). There are many applied questions that arise from this principle such as, "How can people be trained to notice and appreciate consistent benefits in their lives?" It is likely that individuals who are high in trait gratitude are more likely to notice and appreciate these faithful benefits than less grateful individuals, but to date I am unaware of any research that has evaluated this hypothesis. Thus, it is important to point out that in order for gratitude to be experienced, one must recognize the gift.

The second crucial aspect of "recognizing the gift" is that the individual must recognize that the benefit came from an external source. A gift is a benefit provided by another. This has been demonstrated in a number of studies (e.g., Roseman, 1991; Van Overwalle, Mervielde, & De Schuyter, 1995; Zaleski, 1988) and is consistent with Weiner's attribution theory of emotion (1985). Weiner proposed that when success is attributed to an outside source, gratitude should result, but when success is attributed to one's self, then the emotional consequence is pride. In general, research supports this distinction, however in studies where participants are recalling actual emotional events, oftentimes both pride and gratitude are experienced with successes, and if anything these emotions seem to be positively correlated. This is probably because in actual successful achievements there is rarely a situation where one's success is solely determined by one's own contribution exclusive of the help of others. Thus, it makes some sense that gratitude and pride are often experienced together because when one achieves a major accomplishment she typically recognizes both her own contribution and the contribution of others to her success. In summary, "Recognizing the Gift" involves both recognizing that a benefit has occurred, and recognizing that it has been given from an outside source.

3.2.2 Recognizing the Goodness of the Gift

Grateful appraisals are also characterized by recognizing the goodness of the gift; the more an individual values a benefit, the more gratitude is experienced. This was first demonstrated by the important seminal study of Tesser, Gatewood, & Driver (1968). In this study participants read three scenarios depicting benefits, and the authors created a number of different versions of the story so as to manipulate the appraisals of interest. Indeed, the more a subject said they valued the benefit, the more gratitude they reported. Again this seems to be almost too obvious, but it is important to highlight that it is not so much the objective value of the event that is important. Rather, it is the psychological value that one attributes to the event that is

critical. This subjective value aspect of grateful appraisals was clearly demonstrated in a recent study by Algoe, Haidt, and Gable (2008). This study took advantage of a common practice in college sororities. During a 4 day period, "Big Sisters" shower "Little Sisters" (new members of the sorority) with anonymous gifts. At the end of this period a ceremony reveals the identity of each little sister's "Big Sister." There are many important findings that emerged from this study, but the finding that is most relevant for our discussion here was the "responsiveness" of the gifts. Algoe et al. found that the perceived thoughtfulness of the Big Sister was a robust predictor of gratitude in the Little Sister, and more consistently predicted gratitude than a number of other attributions, including the financial cost of the gift. They found that both "liking" and "thoughtfulness" of the gifts most consistently predicted gratitude, which emphasizes the importance of perceived value to gratitude.

Furthermore, Wood, Maltby, Stewart, Linley, and Joseph (2008) found that grateful individuals (i.e., those high in trait gratitude) were more likely to attribute value to a gift, and this in part explains why grateful people experience more gratitude than less grateful individuals. Stated differently, one of the characteristic appraisals of grateful individuals is that they tend to attribute more value to benefits. Can people be trained to "recognize the goodness in the gift"? Recent work with children and adolescents suggests that this is possible (Froh et al., under review). Moreover, this study found that this training was associated with boosts in well-being. Research in this area however, is still in its infancy, and I will treat this issue in more depth in Chap. 11 where I deal with the development of gratitude.

3.2.3 Recognizing the Goodness of the Giver

Attributions that lead to gratitude are also characterized by attributing goodness to the giver. First, the "goodness of the giver" is reflected in the finding that the more a beneficiary perceives that a benefit has cost the benefactor, the more grateful they are likely to be. Again, this was demonstrated in the Tesser et al. study (1968), where they found that the more a favor cost a giver, the more the receiver experienced gratitude, and this effect appeared to be independent of the perceived value of the gift. This has also been demonstrated by a number of other studies (e.g., Algoe et al., 2008). Similarly, when an individual puts more effort into a successful collaborative project, this produces more gratitude in their partner (Peterson & Schreiber, 2006). Interestingly, in this study the effort on the part of the partner produced a much greater impact on gratitude than did the partner's ability. Although working with a partner with high ability produced more gratitude than a partner with low ability, this had much less impact on one's gratitude than did a partner's effort. These two aspects support the "goodness of the giver" theme: the effort and the cost of a favor contribute to one's view of the goodness of our benefactor, and these appraisals produce more gratitude.

The more important aspect of the goodness of the giver lies in the *intentions* of the giver. Gratitude appears to be experienced only when the beneficiary perceives

that the gift was given for their benefit (e.g., Tesser et al., 1968; Wood et al., 2008). For example, Graham (1988) found that when a child was chosen first by a captain of a sports team specifically to benefit the child, they experienced gratitude, but when they were chosen first because the captain was required to do this, they did not report that they would experience gratitude. Although there are some developmental qualifications to this finding (see Chap. 11), this result indicates that the perceived intentions or motivations of a giver are crucial to one's experience of gratitude. Furthermore, if a giver is perceived to be giving out of selfish motivations, this produces less gratitude. In our debt of gratitude study (Watkins, Scheer, Ovnicek, & Kolts, 2006), we found that subjects reported they would experience less gratitude when a benefactor's giving was associated with expectations of a return favor. This is probably because when someone gives with expectations of return, we suspect that they are giving for their own sake rather than our own. In sum, when one feels that a gift is not really a gift—it is given with strings attached—they are less likely to feel grateful for the benefit. The more a receiver attributes good intentions to a giver, the more likely they will experience gratitude.

Although several studies have demonstrated the importance of benevolent intentions on the part of the giver, there are several situations that reliably produce gratitude where no giver is apparent. How can one attribute good intentions to a giver when there is no apparent giver? For example, in a situation where one survives a disaster such as a hurricane, there is no apparent giver who has "rescued" a survivor from this catastrophe. This situation is similar to aesthetic experiences (to be discussed later), which also appear to produce gratitude. This is an issue that deserves more research and discussion, but I submit that in these situations the beneficiary is implicitly attributing benevolent intentions to some giver, whether it is a divine giver or a personalization of forces such as luck. I discuss this issue in more depth in the context of aesthetic experiences and gratitude.

In this context it may be useful to discuss the benefits of focusing on good givers, rather than listing specific blessings. In one study we found that reflecting on a good giver (someone to whom the subject felt grateful) significantly boosted positive affect (Watkins et al., 2003, Study 4). This induction of gratitude and positive affect seemed to have more impact than a counting blessings type of exercise (Study 3 in Watkins et al., 2003). This might be because when one is reflecting on a good giver, they are probably reflecting on many benefits that this person has provided for them. Thus, there may be no meaningful distinction between reflecting on blessings versus reflecting on givers, but whatever the case, it appears that there is benefit to reflecting on good givers.

3.2.4 Recognizing the Gratuitousness of the Gift

The final group of appraisals that lead to gratitude may be characterized as recognizing the gratuitousness of the gift. By gratuitous, I mean something that is not needed or is not strictly necessary. Benefits that go beyond one's social

expectations of others are more likely to result in gratitude. For example, a woman would be more likely to feel grateful if her husband gives her flowers unexpectedly than if she receives flowers from him on their wedding anniversary (when she expects to receive this gift from him). In one study we found that individuals who recounted the gifts that they received over the Christmas Holiday season were not higher in positive affect or more grateful than those individuals who listed things they wanted to receive over the holidays but did not. This result is in contrast to an almost identical study where we found that individuals who recounted things they were thankful for that they did over the summer break were both more thankful and were in a better mood than those who listed things that they wanted to do over the summer but were unable to (Watkins et al., 2003, Study 3). This is probably because people *expect* to receive gifts over the winter holidays, and so recalling these things did not enhance gratitude because these benefits did not exceed their social expectations. Other researchers have found that people feel less grateful toward their mother than to a stranger for an identical favor (Bar-Tal, Bar-Zohar, Greenberg, & Hermon, 1977). If one of the functions of gratitude is to encourage more favors from a benefactor, these findings make little sense because one's mother is in a position to provide many more future favors than a stranger. However, these findings do make sense in the context of the principle "recognizing the gratuitousness of gifts." One expects one's mother to provide favors (it's her "job", after all), whereas one does not expect strangers to provide these benefits. Thus, there may be an important surprise factor in gratitude: one is more likely to experience gratitude when a benefit surprises them. Taken together, research indicates that gratitude is more likely when gifts are gratuitous. When one does not expect a favor they are more likely to experience gratitude in response to that favor.

Of course, social expectations are a matter peculiar to each individual; some expect more of others and some expect less. This may be one reason that narcissism tends to undermine gratitude, because narcissists tend to have high expectations of favors from others. I will discuss this issue in more depth in Chap. 12, but for now it is important to highlight some practical implications of this "recognition." Because social expectations of others are malleable (presumably one may increase or decrease their expectations of others), one avenue to more frequent and powerful experiences of gratitude is to lower one's social expectations. For the most part our social expectations of others probably operate in the background of awareness, so being mindful of one's expectations of others may be an important first step to actually lowering social expectations, and this in turn should enhance the likelihood of gratitude. For example, in a long-term romantic relationship oftentimes expectations of one's partner tend to become unconscious over time. If one could become more aware of their expectations of benefit from their partner, this might serve as an impetus for lowering unreasonable expectations from one's partner, which should enhance gratitude in the relationship. Perhaps the essence of taking someone for granted is when one is unaware of the high expectations of benefit that he or she has for the other.

In summary, there are four themes that characterize the appraisals that lead to gratitude. First, one must recognize that a gift (benefit or favor) has indeed occurred.

Second, the more individuals value a gift, the more gratitude they tend to experience. Third, when one recognizes the goodness of the giver, this enhances the likelihood of grateful experience. The more a beneficiary sees that a gift has cost a benefactor, the more gratitude they tend to experience. In order to experience gratitude, the receiver of a gift must attribute the benefit to good intentions from their giver. And finally, when one recognizes the gratuitousness of a gift, they are more likely to experience gratitude. The more a benefit goes beyond one's social expectations, the more gratitude they will tend to experience. In an important study, Wood et al. (2008) showed that individuals high in trait gratitude tend to attribute more value to the gift, more cost to the giver, and more benevolent intentions to a giver. In two of their three studies, these appraisal patterns fully mediated the relationship between trait and state gratitude. In other words, the reason that grateful people tend to feel more grateful is because they are more likely to recognize the goodness of the gift and the goodness of the giver. I would further propose that grateful individuals are more likely to notice benefits from others, and they are more likely to see benefits as going beyond what they would expect from others. These last two proposals await future research. Can individuals be trained in these "recognitions of gratitude" and consequently become more grateful people? This is an important question for future research and I will discuss this in more depth in the latter chapters of this book.

At this point I think it is important to mention a few limitations to these principles. First, the bulk of research that these "recognitions of gratitude" are based on was conducted with vignette or scenario studies. In these studies participants are to imagine themselves in a particular scenario and are asked to forecast their emotional responses. Scenario studies have a number of advantages in emotion research, most prominently that in scenarios one can carefully control, isolate, and manipulate different dimensions of appraisals. However, there are a number of well-known problems with these designs, including all of the problems associated with self-report and affective forecasting errors. One can never quite be sure whether individuals are reporting how they think they would actually respond, about their personal theories about emotions, or about how they would like to respond. Methodologies that ask subjects to recall emotional incidents or recall incidents where certain appraisals are prevalent are probably better in this regard (and some of the studies cited above have used these designs), but these studies also suffer from recall biases. Furthermore, many of our conclusions about grateful appraisals have relied on the Tesser et al. (1968) study. While I believe that this study is important, there are a few issues with this study that should be highlighted. First, the dependent variable that Tesser and colleagues used was a composite of gratitude and indebtedness, perhaps reflecting the prevalent view at the time that these were redundant states. They combined these measures because they were significantly correlated, and the "magnitude" of the association suggested to the authors that gratitude and indebtedness were identical concepts. Although the authors did not report the exact "magnitude" of the relationship, it is important to point out that Tesser et al. only used men in their study. This is important because there may be some important gender differences in gratitude and indebtedness. Indeed, recently we reanalyzed our "Debt of gratitude" study (Watkins et al., 2006) by gender,

following a suggestion by Sarah Algoe (Uhder, Watkins, & Ovnicek, 2009). The original article included two studies, and in both studies gratitude and indebtedness scores were positively correlated, however the relationship only reached statistical significance in Study 1. When we took apart these correlations by gender however, a very different picture emerged. Gratitude and indebtedness correlated only at $r = .12$ in women (a non-significant relationship), whereas they correlated at $r = .53$ in men. We interpreted these findings as indicating that women are more likely to discriminate between gratitude and indebtedness. Although this has important implications concerning the value of gratitude for men and women, it also has important implications for how one ought to interpret the findings of Tesser et al. (1968). Current research suggests that gratitude and indebtedness are distinct states (see the previous chapter), and thus because Tesser et al. combined these scores and used only men in their sample, the pattern of results might be misleading. Although there is a considerable amount known about the appraisals that lead to gratitude, it seems that there is more work to be done.

3.2.5 It's a Wonderful Life: Death, Deprivation, and Gratitude

Recently we showed that gratitude is enhanced when one reflects on one's own death (Frias et al., 2011). We reasoned that when individuals recognize that life is a limited resource, this should enhance their appreciation and gratitude for life. As Chesterton (1905/1986, p. 69) put it, "Until we realize that things might not be, we cannot realize that things are." As referred to earlier, life is a constant benefit that people easily adapt to and thus tend to take for granted. When one reflects on the possibility of one's own death however, this might enhance one's appreciation for something that "might not be." After recording initial mood states, we randomly assigned our participants to one of three conditions. In the control condition participants were guided through an exercise of imagining "another typical day." In the traditional mortality salience condition participants wrote about their experience when thinking about their own death. In the critical *death reflection* condition participants were guided through imagining their own death in a house fire (Cozzolino, Staples, Meyers, & Samboceti, 2004). This treatment is intended to produce vivid and specific images of one's death, and is designed to emulate the three core aspects of near death experiences (Ring & Valarino, 1998). As predicted, we found that this treatment enhanced gratitude relative to the control condition, and this effect was independent from positive affect more generally. Although the gratitude experienced as a result of the traditional mortality salience manipulation was also greater than the control condition, the impact on gratitude was not as great as that demonstrated by the death reflection condition. Thus, when one recognizes that "things might not be" this seems to enhance one's gratitude for these things.

Our findings are consistent with what Koo, Algoe, Wilson, and Gilbert (2008) called the "George Bailey Effect." This refers to the famous Frank Capra film *It's a Wonderful Life*. In this traditional Christmas movie, a distraught George Bailey is

shown what his town would have been like without him, with the inevitable result being that Bailey develops a deep appreciation for the town as it is. In three studies, Koo and colleagues demonstrated that when one imagines the absence of a pleasant event or romantic partner, this actually improves gratitude and other positive affects relative to imagining their presence. Interestingly, in another study they found that students did not predict this effect, revealing an intriguing affective forecasting error. It is important to point out that participants in the "absence" conditions were imagining the absence of some significant thing or person that was actually a part of their life. For example, when individuals imagined what it would be like if they had never met their romantic partner, they then developed a deeper appreciation and gratitude for their partner.

These results are consistent with a curious pattern of results that followed from the terror attacks on the United States on September 11, 2001. Peterson and Seligman (2003) found that online reports of trait gratitude increased following these events. Although gratitude had returned to baseline within 6 months, we found a similar effect (Watkins, Masingale, & Whitney, 2003). In a large screening study, students reported significantly more trait gratitude Fall Quarter of 2001 (after the events of 9/11) than the previous two Fall Quarters. Why would such horrific events result in increased gratitude? I propose that gratitude increased because people in the US became acutely aware of the benefits afforded by their country; benefits and rights that people easily adapt to and thus tend to take for granted. When one sees the Twin Towers crumbling into dust, one becomes acutely aware of things "that might not be", and hence one develops more appreciation for these things (for an alternative interpretation, see Peterson & Seligman). To summarize, research suggests that when one becomes aware of the possibility of the absence of a benefit, they tend to become more grateful for that benefit.

3.2.6 Beauty and Gratitude

There is also preliminary evidence that exposure to natural beauty produces gratitude (Watkins, Gibler, Mathews, & Kolts, 2005). In this study, participants viewed slides in one of three conditions. In the control condition participants viewed neutral objects and rated their beauty on a Likert-type scale. In the Beauty Appreciation condition participants viewed beautiful natural scenes and rated their beauty on an identical scale. In a third condition participants viewed the same natural beauty slides as in the Beauty Appreciation condition, but instead of judging their beauty they rated the likelihood that these scenes were located in Washington State. As predicted, we found that after controlling for materialism, the Beauty Appreciation condition produced more gratitude than the control condition, while the third condition fell between the control and the Beauty Appreciation conditions. Moreover, we found that beauty judgments of the natural environment photographs were highly correlated with post-test state gratitude ($r = .70$, $p < .001$), and changes in state gratitude from the screening to post-test ($r = .51$, $p < .05$). Also, we found

that posttest trait gratitude was strongly correlated with beauty judgments ($r = .65$, $p < .005$), suggesting that grateful people are more likely to appreciate beauty (trait gratitude was uncorrelated with the beauty ratings of the neutral objects). These findings bring up a number of interesting implications and questions. What is notable about this finding is that there is no obvious giver at hand. As discussed earlier, people are much more likely to experience gratitude when one appraises a benefit as having been intentionally given for their benefit. It is possible that as people viewed these natural beauty scenes they became at least implicitly aware of the beauty given by a divine creator. Moreover, as reviewed above, one is more likely to experience gratitude when one feels that the gift was undeserved. Perhaps as people viewed these slides they viewed these natural "gifts" of nature as going beyond what they deserved. Whatever the case, an interesting area for future research is to study grateful experience in contexts where the benefactor is not obvious. The appreciation of beauty appears to be an important consideration for future gratitude and subjective well-being research. The appreciation of natural beauty appears to have significant emotional benefits, confirming John Keats insight; "A thing of beauty is a joy forever."

3.3 Inducing Gratitude in the Lab

To review from where we have come thus far, research has shown that the cognitive antecedents of gratitude are characterized by a particular pattern of appraisals. First, one must recognize the gift; one must see that a benefit or favor has indeed occurred. After one becomes aware of the gift, several additional appraisals enhance the likelihood of gratitude. Recognizing the goodness of the gift, the goodness of the giver, and the gratuitousness of the gift all lead to increased gratitude in the wake of a benefit. Furthermore, we have seen that when we become aware that a benefit might not exist, we tend to become more appreciative and grateful for that benefit. Finally, we have seen that gratitude is enhanced when we appreciate natural beauty. Given this awareness of the cognitive conditions of gratitude, we are now in a position to explore the methods that might be effective in inducing gratitude in the lab. An adequate understanding of gratitude demands that we investigate the consequences of gratitude. What does gratitude cause people to think or do? What are the psychophysiological consequences of gratitude? How does gratitude impact prosocial behavior? Because clear issues of causation are inherent in all of these questions, they are best answered with true experimental designs. In order to effectively use experimental designs in gratitude research, we must have reliable methods for inducing gratitude in the lab. Fortunately, there are now a number of studies that have successfully induced gratitude in experimental research.

One class of these gratitude inductions could be called *counting blessings exercises*. For example, we were able to induce gratitude and improved mood state by having subjects list the things that they did over the summer for which they were thankful (Watkins et al., 2003, Study 3). In a similar exercise, Emmons and

McCullough (2003) asked their participants to list up to five blessings they were thankful for, and this impacted their gratitude. Although the concern of Emmons and McCullough was more long-term impact of counting one's blessings, Dunn and Schweitzer (2005) successfully used a similar procedure to manipulate gratitude in the lab. In their study they asked their participants to list 3–5 things that made them most grateful. Participants were then asked to describe in more detail the one thing that made them most grateful. Following experimental emotion research, some studies have asked participants think about an event from the past that provoked gratitude, and then to re-experience the event as vividly as possible (e.g., Jackson, Lewandowski, Fleury, & Chin, 2001).

Thinking about a person for whom one feels grateful may also be an effective method for inducing gratitude, and we might refer to this category of inductions as *grateful reflection exercises*. We found that thinking about a person in this way produces reliable increases of positive affect, but note that thinking about a person for whom one is grateful appeared to be more effective than writing about them (Watkins, Woodward, Stone, & Kolts, 2003, Study 4). Although we did not measure changes in gratitude in this study, this is likely to be another reliable low cost method of inducing gratitude in the lab.

Other gratitude inductions in an experimental context have actually provided benefits to the subject in the lab. One of my favorite inductions was developed by Bartlett and DeSteno (2006). In this technique the experimenters had participants work on a long and somewhat tedious computer task. After participants had worked on this task for some time, the computer malfunctioned and all of their work was apparently lost. The experimenter tried to get the computer to work, but to no avail, and they left the lab to find a tech to help them fix the problem. A confederate (apparently another student participating in the study) looked at the computer and determined that the monitor had simply become unplugged. They plugged it in only to discover that none of the subject's work was lost. As one might imagine, this method produces powerful responses of gratitude in subjects, and this induction has been shown to cause notable consequences such as enhanced prosocial behavior. Other researchers have also used actual benefits in the lab, such as giving subjects undeserved raffle tickets for prizes (e.g., Tsang, 2006).

Although these appear to be effective gratitude induction techniques, it appears that there is room for some creative researchers to develop other ways of inducing gratitude in the lab. The *Velten Mood Induction Procedure* has been used successfully for some time to induce positive and negative emotions (Velten, 1968). In this technique participants say progressively more positive (or negative) statements to themselves. One wonders if this procedure could be modified to specifically induce gratitude. The Koo et al. (2008) studies would suggest that imagining what it would be like if one did not have a significant blessing should also produce reliable inductions of gratitude. Surely more ingenious gratitude induction methods are waiting to be discovered, but even now the gratitude researcher has several reliable options for producing gratitude in the research environment.

3.4 Conclusions

In this chapter I have reviewed the antecedents of gratitude, and we have seen that the most important precursors of gratitude are cognitions. As the epigraph by Chesterton emphasizes, gratitude is a cognitively imbued emotion, and for him, grateful appraisals represent some of humankind's most noble thinking. When experiencing a benefit, certain appraisals seem to be critical in order for gratitude to occur. Recognizing the gift, recognizing the goodness of the gift, recognizing the goodness of the giver, and recognizing the gratuitousness of the gift, characterize grateful thinking. Furthermore, gratitude is more likely to ensue when one recognizes that a blessing "might not be", and when appreciating natural beauty. Appreciating the cognitive conditions of gratitude is important to developing treatments to enhance gratitude. But this begs the question, why should gratitude be encouraged? I pursue this issue in the next chapter.

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Chapter 4
What Good Is Gratitude?

> *I think we delight to praise what we enjoy because the praise not merely expresses but completes the enjoyment; it is its appointed consummation. It is not out of compliment that lovers keep on telling one another how beautiful they are; the delight is incomplete until it is expressed.*
>
> –C. S. Lewis (1958, p. 95)

Previously I have bemoaned the lack of research attention that gratitude has received, and I have assumed that gratitude is indeed a virtue. But this really begs the question as to whether gratitude is an adaptive emotion, whether it is an emotion to be encouraged, and whether gratitude is a state and trait worthy of research. Put differently, "What good is gratitude?" In this chapter I hope to answer this question. C. S. Lewis wrote the epigraph above as he was struggling with the adaptive function of praise. Is praise (and gratitude) simply an expression that encourages a giver to give more? Prior to the recent wave of gratitude research, this seemed to be the assumption in the social sciences. Principally, people express praise or gratitude as a social reinforcer, an encouragement to their benefactor to continue to benefit them in the future. But is this the only—or even the primary—function of gratitude? Lewis's answer to this question appears to be 'no.' In fact, Lewis argues that the primary function of gratitude is that it completes one's enjoyment of the gift. Stated differently, when one experiences and expresses gratitude, this should enhance enjoyment of the benefit. Similarly, philosopher Comte-Sponville (2002, p. 132) observed:

> Gratitude is a second pleasure, one that prolongs the pleasure that precedes and occasions it, like a joyful echo of the joy we feel, a further happiness for the happiness we have been given. Gratitude: the pleasure of receiving, the joy of being joyful.

Most current gratitude researchers have seemed to follow Lewis's approach: gratitude has significant (and immediate) emotional benefits as well as social benefits. Indeed, my amplification theory of gratitude has similar implications.

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If gratitude amplifies the good in one's life, then gratitude should clearly identify the aspects of life that contribute to living well, and therefore gratitude should be an important component of well-being. Thus, gratitude researchers have pursued the question: Does gratitude enhance well-being? Although the complete answer to this question calls for more research, the preponderance of evidence has provided compelling support for the theory that gratitude enhances well-being. Most of this research has focused on the impact of gratitude on emotional well-being, but I shall explore the impact of gratitude on social and physical well-being as well.

4.1 Gratitude and Emotional Well-Being

If gratitude amplifies the positive emotions one experiences with benefits, then gratitude should promote emotional well-being. A number of studies have now provided support for the theory that gratitude enhances emotional well-being. Early studies focused on the association between gratitude and subjective well-being; the logic being that if gratitude enhances emotional well-being, then for the most part grateful people should be happy people. Correlations between trait gratitude and various measures of subjective well-being range between .41 and .68. Interestingly, it doesn't appear to matter what trait gratitude measure is used, the GQ-6, the GRAT, and the VIA Gratitude scale all seem to produce roughly the same relationships with emotional well-being. Two early studies will serve as good illustrations of these relationships. In their development of the GQ-6, McCullough, Emmons, and Tsang (2002) found that this measure was strongly associated with life satisfaction ($r = .51$), and moderately correlated with vitality ($r = .38$) and global subjective happiness ($r = .41$). These relationships held after controlling for social desirability. Similarly, in our development of the GRAT (Watkins, Woodward, et al., 2003), we found that trait gratitude was strongly correlated with satisfaction with life across four different populations (*r*s ranged from .49 to .68). In Study 2, global happiness as measured by the Fordyce Happiness Scales (Fordyce, 1988) was also strongly related to trait gratitude. Moreover, in both the McCullough et al. (2002) and the Watkins, Woodward, et al. (2003) papers, trait gratitude was moderately associated with positive affectivity. One criticism of these findings might be that these relationships simply reflect self-report biases. There are several pieces of evidence that seem to speak against this interpretation however. First, note that in the McCullough et al. study these relationships held after controlling for social desirability. Furthermore, in Study 3 of our paper we included a measure that is seen as an indirect measure of happiness. With this scale participants simply rate the pleasantness of neutral words (Kuykendall, Keating, & Wagaman, 1988). Indeed, trait gratitude was moderately associated with the positivity of neutral word ratings. Perhaps most convincingly, McCullough et al. found that informant ratings of participants' gratitude were moderately correlated with their self-report of their emotional well-being on several variables. In a conceptual replication, we also found that people's acquaintances who they judged as grateful were felt to be considerably

more happy than those they judged to be less grateful (Watkins, Martin, & Faulkner, 2003).

These relationships have now been replicated across a number of studies that have included diverse age groups, measurement methods, and cultures (e.g., Adler & Fagley, 2005; Chen & Kee, 2008; Froh, Yurkewicz, & Kashdan, 2009; Park, Peterson, & Seligman, 2004; Peterson, Ruch, Beerman, Park, & Seligman, 2007; Thomas & Watkins, 2003; Toussaint & Friedman, 2009). Indeed, gratitude fares quite well in predicting happiness when compared to other strengths. For example, Park et al. (2004) found that only hope and zest outperformed gratitude in predicting satisfaction with life, and they pointed out that the relationship between zest and happiness may well be something of a tautology.

Not only is gratitude correlated with emotional well-being, it is also moderately to strongly inversely related to psychological ill-being. For example, in the McCullough et al. (2002) study with the GQ-6, increased trait gratitude predicted lower levels of anxiety and depression. Similarly, across 2 studies and 4 populations we found that trait gratitude as measured by the GRAT was inversely related to both depression and anxiety (Watkins, Woodward, et al., 2003). Indeed, in Study 3 we found that trait gratitude correlated with depression symptoms as measured by the BDI at $r = -.72$. Furthermore, McCullough et al. found that trait gratitude was also inversely associated with negative affectivity. In our work, the positive relationship of gratitude with positive affectivity seems to be more reliable than the inverse relationship with negative affectivity. This makes some sense because in theory, positive and negative affectivity as traits should be independent, and being a positive construct, gratitude should be more strongly related to positive affectivity. In several studies Krause (e.g., 2007) has found that gratitude is inversely associated with depression in elders. Path analysis supported the model that gratitude leads to lower depression. These findings support the idea that trait gratitude may actually help protect against psychological disorders, and I will discuss this issue in more detail in Chap. 10 (see also, Watkins & Ola, 2001).

Gratitude also seems to predict emotional well-being better than other important personality traits. It is well known that personality traits are much more predictive of happiness than life events (for a review, see Diener, Suh, Lucas, & Smith, 1999), so it is important to determine if trait gratitude predicts subjective well-being independently of other personality traits known to be related to happiness. Indeed, in three separate papers consisting of diverse populations, gratitude was found to predict subjective well-being above and beyond the Big-5 personality traits (McComb, Watkins, & Kolts, 2004; McCullough et al., 2002; Wood, Joseph, & Maltby, 2008). In each case, trait gratitude showed stronger correlations with subjective well-being than any of the Big-5 personality traits. Indeed, McCullough et al. showed that this pattern of results holds for informant reports as well.

The only caveat to this strong pattern of results seems to be with one study that investigated the relationship of the 24 VIA strengths to happiness in children (Park & Peterson, 2006). This study was unique in that it studied young children (aged 3–9), and that it used a content analysis of parental descriptions of their children. Across all ages in this population they did not find that gratitude was associated

with happiness in the content analyses, however, gratitude was significantly related to happiness in the older children of this sample (aged 7–9). The failure to find a relationship between gratitude and happiness in the sample as a whole may have been due to a restriction in range in parental reports of gratitude in their children. In fact, only 2 % of the parental descriptions mentioned gratitude in their children. This has some interesting developmental implications that I will discuss in a later chapter, and I suspect that gratitude was more frequently mentioned in descriptions of the older children, which allowed for a more powerful test between the relationship between gratitude and happiness (and hence a significant relationship).

Furthermore, several prospective studies have shown that trait gratitude predicts enhanced emotional well-being over time. For example, in one study (Spangler, Webber, Xiong, & Watkins, 2008), we found that trait gratitude predicted satisfaction with life and positive affect 1 month later after controlling for initial levels of these variables. In this study we also found that gratitude predicted decreases in negative affect over time. In an even more rigorous evaluation of this relationship, Wood, Maltby, et al. (2008) demonstrated that trait gratitude predicted decreased depression in two cross-lagged longitudinal studies. Supporting this finding, Krause (2009) found that over time, gratitude predicted decreased depression symptoms in the elderly. Taken together, these studies support the notion that trait gratitude prospectively predicts enhanced emotional well-being.

Although the sheer number of these relationships is impressive, all of these studies discussed thus far are correlational. As Diener (2008) has rightly pointed out, piling up more and more correlations between two variables does not make a causal relationship between the variables more likely. Thus, although the relationship between gratitude and emotional well-being is compelling, the correlational nature of these studies leaves the causal relationship between gratitude and well-being in doubt. The relationship between gratitude and subjective well-being could be due to a third variable, it could be due to gratitude causing enhanced well-being, it could be due to gratitude simply being a happy consequence of being happy, or it could be due to both gratitude causing enhanced happiness but happiness also creating more gratitude. In order to firmly establish the causal relationship between gratitude and emotional well-being, true experimental studies need to be accomplished. Fortunately, a number of experimental studies have now provided promising support for the theory that gratitude enhances emotional well-being.

Several experimental studies have found that gratitude exercises result in immediate improved mood. For example, in Watkins, Woodward, et al. (2003) we presented two studies showing that grateful cognition results in boosts in immediate mood state. In Study 3 we randomly assigned students to either reflect on things they wanted to do over the summer but were unable to (the control condition), or reflect on things they were able to do over the summer that they were thankful for. Supporting our predictions, participants in the gratitude condition reported that they were significantly more thankful for the summer and reported less negative affect than those in the control condition. One problem with this and other studies, is that one cannot be sure if participants in the gratitude condition were actually experiencing enhanced mood, or if it was that those in the “control” condition were

experiencing a decrement in mood state. To remedy this problem, we conducted another study in which we randomly assigned our participants to one of four conditions (Study 4, Watkins, Woodward, et al., 2003). In our control condition participants simply wrote about the layout of their living room. In the remaining three conditions participants either thought about someone they were grateful for, wrote about someone they were grateful for, or wrote a letter to someone they were grateful for. All three gratitude conditions showed increased positive affect relative to the controls. Somewhat surprisingly, the grateful thinking condition produced the greatest increases in positive affect, and I will discuss the implications of this trend in the application chapter (Chap. 13).

Another interesting immediate state change resulting from a gratitude manipulation was found in a Chinese population (Lau & Cheng, 2011). Compared to writing about hassles and neutral events, writing about grateful events decreased *death anxiety*. Although a large effect size was found with decreasing death anxiety ($\eta_p^2 = 0.16$), the impact on positive affect was in the expected direction but did not reach significance ($p = .07$). The failure to find a significant effect of recalling grateful events on positive affect seems to be in contrast with other studies, but the number of subjects used in this study was not large, and there may be some interesting cultural differences that help explain why the effect did not reach statistical significance. Furthermore, as suggested earlier, the fact that participants wrote about grateful events may have impeded positive affect (rather than simply thinking about them). As discussed in Chap. 3, there are also several verified experimental gratitude induction procedures that have been found to produce reliable improvements in mood. Taken together, there are now several studies that have shown that gratitude cognitions produce reliable increases in positive affect. The logic behind many of these studies (see for example, Watkins, Woodward, et al., 2003), is that subjective well-being is largely comprised of the frequency of positive to negative emotional experiences (see Diener et al., 1999). Thus, if more frequent gratitude cognitions create more frequent positive affect, gratitude should enhance long-term global happiness. Although this reasoning makes some sense, research that investigates the long-term impact of gratitude exercises on well-being is needed to justify this reasoning.

There are now a number of experimental studies providing evidence that gratitude interventions impact long-term well-being. Perhaps the most rigorous and extensive test was conducted by Emmons and McCullough (2003). Across three studies with varying time frames and populations, they found that a simple "counting blessings" gratitude exercise promoted emotional well-being across time. Some of the well-being variables were measurements of global subjective well-being (Studies 1 and 3), and others were indices of positive affect (Studies 2 and 3), but the prevailing story that emerged out of these studies was that counting one's blessings on a regular basis promotes emotional well-being. There are several characteristics of these studies that make these findings particularly convincing. First, in Studies 2 and 3 they found that the intervention also impacted daily gratitude, which appeared to fully mediate the treatment effect on positive affect. Second, each study used a different time frame for the intervention (9, 2, and

3 weeks), yet every study showed that the gratitude intervention produced significant effects on emotional well-being. Third, in Study 3 the population under study was suffering from neuromuscular disease. The finding that counting blessings impacted well-being in this population seems particularly notable and suggests that similar interventions might be used with a variety of people. Moreover, in Study 3 they found that their intervention also produced significant effects in informants' reports of their subjects' emotional well-being.

Some have been concerned that many of the effects of gratitude treatments have only proved to be significant when compared to a "hassles" "control" condition (e.g., Wood, Froh, & Geraghty, 2010). The worry here is that it is not so much that gratitude is producing increases in well-being, as it is that counting one's hassles produces a decrement in well-being. While there is some legitimacy to this concern, there are several aspects of the Emmons and McCullough (2003) studies that speak against this explanation. First, in Study 1, the gratitude intervention significantly outperformed both the hassles and the "events" control conditions. In the "events" condition participants simply listed those events that impacted them during the week. Also, it is interesting to note that the well-being means in the "events" condition were almost identical to those in the "hassles" condition, questioning the suggestion that counting one's hassles actually produces decrements in well-being. Finally, in Study 3 Emmons and McCullough used a no treatment control, where participants simply completed the outcome measures. Thus, although this is a legitimate concern, the pattern of results in gratitude intervention studies does not seem to fit the interpretation that gratitude treatments only outperform "control" interventions that decrease well-being.

Other counting blessings studies have also revealed significant effects on emotional well-being in various labs, settings, and age groups. For example, in one study we randomly assigned students to either recall grateful events or a control condition where students recalled events that impacted them emotionally (Watkins, Neal, & Thomas, 2004). In each condition participants recalled three memories from different time frames, and they completed 12 recall sessions over a 1-month period. Compared to our emotional recall control condition, students recalling grateful memories showed increased positive affect and decreased negative affect over the treatment period. However, although means were in the expected direction, treatment did not reveal a significant effect on satisfaction with life. This may be because life satisfaction tends to function more as a trait than a state variable (see Diener et al., 1999), and thus it may be difficult to produce changes in outcome variables such as this. Lyubomirsky, Sheldon, and Schkade (2005) however, were able to show significant increases in life satisfaction with a counting blessings condition compared with a no treatment control. An interesting caveat emerged out of this study however. They found that individuals who counted their blessings once per week showed more enhancement of emotional well-being than those who counted their blessings three times per week. The authors argued that this was because one is more likely to adapt to a more frequent counting blessings exercise, thus decreasing its impact. It is important to note however, that the results of Lyubomirsky and colleagues do not seem to be consistent with those of Emmons

and McCullough (2003). They found that a daily counting blessings intervention produced greater effect sizes in their outcome variables than a weekly intervention (compare Study 2 to Study 1). This is an issue that is likely to have implications for how gratitude treatments can be applied, and I will discuss this in more depth in the applications chapter (Chap. 13).

Perhaps one of the most intriguing findings in the gratitude literature comes out of the Seligman, Steen, Park, and Peterson (2005) paper. In their so-called "three blessings" intervention, participants were to recall three things "that went well" every day for 1 week. What is notable about this study is that this treatment showed continued increases in well-being long after the treatment period had concluded. In fact, participants continued to show enhanced emotional well-being compared to a placebo 6 months after the end of treatment. While the "three blessings" intervention is not formally a gratitude intervention, I submit (as do others; Wood et al., 2010) that most of these "good things" that people were recalling were also things that the participants were grateful for. In a more recent study, we showed that a similar "three blessings" treatment enhanced emotional well-being, but how one thinks about these blessings apparently matters (Watkins et al., 2012). Participants were randomly assigned to one of three conditions. In the placebo control treatment participants were to recall personal semantic memories every day for a week. We then had two "three blessings" treatments, but manipulated how our participants thought about them. In each of these conditions participants recalled three things that went well within the previous 48-h period, and like our control condition, they recalled these things every evening for 1 week. In the gratitude three blessings condition they were to write about how these things made them feel grateful, but in the pride three blessings treatment they wrote about "how this particular experience or event made you feel that you are better than most or better than average." Our primary outcome variable was a composite subjective well-being measure that combined satisfaction with life with positive and negative affect for the previous week. We also assessed depression with the CES-D. We assessed well-being at pretreatment, post-treatment, 1-week post-treatment, and 5-weeks post-treatment. After controlling for pretreatment levels, a main effect for treatment was found for our composite subjective well-being outcome variable, and significant treatment effects were also evident on the CES-D at the 5-weeks follow-up assessment. Results showed that the gratitude three blessings treatment significantly enhanced well-being compared to both the semantic memory control and the pride three blessings treatments. Because well-being was increasing across time in all three treatment conditions, one cannot argue that the significant treatment effect was due to our placebo control producing a decrement in well-being. Furthermore, because our gratitude treatment outperformed the pride treatment, this implies that *how* one thinks about positive events that they are "counting" matters. This finding suggests that counting blessings exercises are successful not simply because one is activating positive memories, but that the experience of gratitude associated with the activation is important as well. One additional finding from this experiment needs to be highlighted. The largest treatment differences in both our subjective well-being and in our depression measure was found at the 5-week follow-up assessment. This is consistent with the

findings of Seligman et al. (2005): the greatest treatment effects for "three good things" treatments appear to be well after the active treatment period.

Moreover, it appears that gratitude listing exercises are not only effective with adults, but with adolescents and children as well. Froh and colleagues found that this intervention was effective with adolescents (Froh, Sefick, & Emmons, 2008; see also Froh, Kashdan, Ozimkowski, & Miller, 2009). More recently, Froh et al. (in press) have shown in two studies that gratitude interventions can be effective with even younger children (aged 8–11). Taken together, gratitude counting blessings experiments have provided evidence that this exercise is effective in enhancing well-being in a variety of settings and populations (see also, Martinez-Marti, Avia, & Hernandex-Lloreta, 2010, for results in a Spanish population).

Gratitude counting blessings exercises appear to be effective with an even wider variety of measures and problems. In an interesting study, Geraghty, Wood, and Hyland (2010a), found that a gratitude counting blessings intervention decreased body dissatisfaction as well as a cognitive intervention that was specifically targeted to change body image cognitions. Both of these treatments did significantly better than a waitlist control group. Interestingly, those in the gratitude group were half as likely to drop out of the treatment than those in the cognitive treatment. Some have suggested that gratitude interventions may be important to the treatment of eating disorders, and because body image issues are important to bulimia nervosa and anorexia nervosa, this study provides some preliminary support for these ideas. It would be interesting to test whether a negative psychology intervention such as restructuring negative body shape cognitions could be combined with the more positive counting blessings treatment. I suspect that both treatments work on different cognitive and emotional mechanisms, thus combining these treatments might be better than either approach alone. In a similar study, Geraghty, Wood, and Hyland (2010b) found that their gratitude treatment reduced worry just as much as a cognitive treatment, and again, both treatments outperformed a waitlist control. These studies provide some promise that gratitude interventions may have value in treating clinical populations.

Although recalling blessings has shown promise in enhancing well-being, some might complain that this is essentially a gnostic form of gratitude. Stated differently, an essential aspect of gratitude is not simply thinking about one's blessings, when people express thanks to others, gratitude is embodied. Several experimental studies have investigated the impact of expressing gratitude to others. Perhaps one of the most powerful examples of this type of gratitude intervention is the *gratitude visit* investigated by Seligman et al. (2005). In this treatment an individual expressed gratitude to a person they felt had benefited them but they had "not properly thanked" (p. 416). This treatment showed large increases in happiness and decreases in depression compared to the placebo group. Indeed, the immediate impact of this intervention was superior to the other positive psychology interventions that Seligman and colleagues investigated. Although significant treatment gains were maintained at 1-month post-treatment, by 6 months happiness and depression scores had returned to baseline. While the temporality of this gratitude intervention might seem discouraging, we should not expect one expression of gratitude to result in

permanent increases in happiness. Given that this treatment involved essentially one gratitude expression, the enhancements in well-being that were observed seems impressive. Other results seem to be consistent with those of Seligman et al., albeit with a less extensive and less personal gratitude expression. In these studies participants have simply written a letter (or several letters) to those to whom they would like to express their thanks. For example, Toepfer, Cichy, and Peters (2011), found that a gratitude letter writing intervention significantly enhanced global subjective happiness and satisfaction with life compared to controls. Moreover, compared to their control condition, the gratitude letter writing treatment significantly decreased depression symptoms. Several other studies have provided evidence for similar benefits of gratitude letters (see Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011; McCabe, Bray, Kehle, Theodore, & Gelbar, 2011).

In sum, there seems to be promising experimental evidence that gratitude enhances emotional well-being. By my count, there are now at least 15 experimental studies across 9 different labs that have shown significant improvements in emotional well-being due to gratitude interventions. Moreover, gratitude treatments have been effective with students in the U.S., Spain, and China; in children, and even in a population of patients with neuromuscular disease. It should be stated however, that legitimate questions regarding the robustness of these outcomes have been raised (Wood et al., 2010). Several studies have failed to find significant effects of gratitude treatments. Other studies have used a counting hassles treatment as their control condition, and questions still remain as to whether this "control" condition might actually produce decrements in well-being. Indeed, I believe that the question regarding the causal status of gratitude and well-being has not been definitively answered, and the concerns of Wood and colleagues need to be taken seriously in future gratitude intervention research. That being said, I believe that there is now strong support for the conclusion that gratitude is not merely associated with well-being, it actually *causes* enhanced subjective well-being.

4.2 A Cycle of Virtue?

We have reviewed research showing that gratitude is strongly associated with emotional well-being, and there is now promising evidence that gratitude is a causal contributor to one's emotional well-being. But the question remains: Does gratitude cause happiness, or does happiness cause gratitude? I propose that the answer to this dilemma is "yes"; gratitude causes increased happiness, but global happiness provides the mechanisms to enhance the likelihood of gratitude as well. In psychopathology, several theorists have argued that emotional dysfunctions are often maintained by vicious cycles or "vicious circles" (e.g., Teasdale, 1983). The argument is that dysfunctional emotion creates conditions in one's life (both cognitively and behaviorally) that enhance the likelihood that these maladaptive moods and emotions will continue, thus resulting in a downward spiral. For example, it is known that depressed mood enhances the accessibility of unpleasant memories.

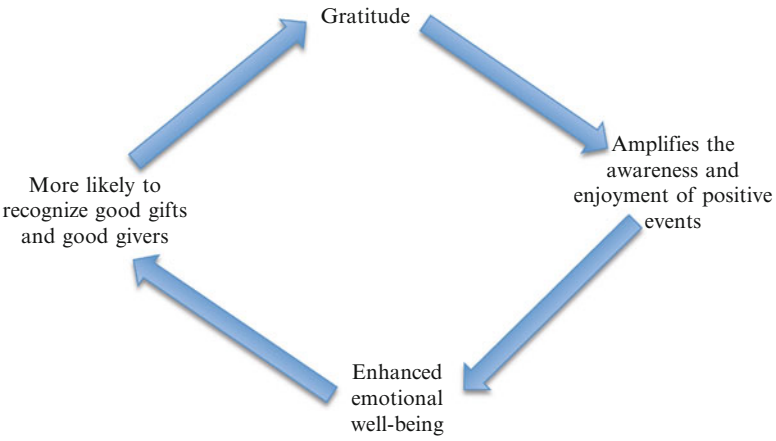

Fig. 4.1 Cycle of virtue for gratitude and emotional well-being

Recalling and ruminating on these memories not only maintains depressed mood, this also activates other memories of negative events. The accessibility of these unpleasant experiences decreases the individual's confidence that mood repair activities will be successful, which inevitably results in the individual avoiding activities that might enhance their mood, thus maintaining depression. Many neurotic disorders can be characterized by similar vicious cycles. However, might there also be upward spirals or cycles of virtue that actually work to enhance well-being?

I submit that gratitude and subjective well-being act in such a manner. Figure 4.1 illustrates this proposal. Experimental work now provides evidence supporting the theory that gratitude supports subjective well-being. *How* gratitude supports well-being is the focus of the second half of this book, but for now I will emphasize the mechanism of psychological amplification: gratitude amplifies one's awareness and enjoyment of benefits. But there is also a whole line of research suggesting that positive affect and happiness may set the stage for experiences of gratitude. Research from this literature suggests that two perceptions should be more likely if one is happy. Several studies show that when positive affect is induced experimentally, people tend to evaluate things more positively. For example, in the classic study by Isen, Shalker, Clark, and Karp (1978), people evaluated their home appliances more positively if they had just been given a seemingly trivial gift (see also Isen & Shalker, 1982). This suggests that if one is feeling good, they are more likely to recognize the goodness of benefits, thus making grateful responses more likely (see Chap. 3). Moreover, when one is encouraged to feel better, research suggests that they evaluate others more positively (e.g., Isen, Niedenthal, & Cantor, 1992). If positive affect encourages positive evaluations of others, this implies that happy people should be more likely to recognize the goodness of the giver. In other

words, happy people should be more likely to acknowledge the good intentions of a giver. This too should promote grateful responding. Although the extant evidence for positive affect promoting gratitude is somewhat indirect, future research could investigate more directly whether positive affect inductions result in attributions known to enhance the likelihood of gratitude such as increased evaluations of the goodness of gifts and increased acknowledgment of good intentions of givers. In sum, I propose that gratitude indeed promotes subjective well-being, which in turn promotes gratitude, resulting in an upward spiral or a "cycle of virtue" (see also Fredrickson & Joiner, 2002).

4.3 Gratitude and Social Well-Being

Because humans are essentially social beings, social well-being is very important to their global well-being. One might even argue that social well-being is one of the most important domains of emotional well-being. If gratitude is indeed good, one would expect that it would positively impact one's social well-being. Furthermore, if gratitude is an other-focused virtue, it should have salubrious effects on one's social life. In a nutshell, the evidence clearly supports the theory that gratitude is good for one's social well-being. There are a number of social benefits in expressing gratitude. For example, when people express gratitude to a benefactor, the benefactor is more likely to help the beneficiary (and even third parties: Clark, 1975; Moss & Page, 1972). One study illustrates these findings nicely. Deutsch and Lamberti (1986) found that 71 % of their participants who were thanked later helped a confederate pick up her books, whereas only 36 % of those who were not thanked did so. A simple "thank you" from a server can produce significant increases in tips (e.g., Rind & Bordia, 1995), and can even encourage benefactors to take electric shocks for a beneficiary (McGovern, Ditzian, & Taylor, 1975).

Moreover, research has clearly indicated that people like grateful individuals, and they dislike less grateful folks (e.g., Suls, Witenberg, & Gutkin, 1981; Watkins, Martin, & Faulkner, 2003). Indeed, the adjective "grateful" is among the most liked of adjectives (in the top 12 %, and "appreciative" was at the 8.3 percentile; Anderson, 1968), but "ungrateful" is one of the most disliked (in the bottom 2 %, 1.66 percentile; Dumas, Johnson, & Lynch, 2002). One reason that grateful people are so well liked is because gratitude motivates prosocial behavior, and I will discuss this research in more depth in Chap. 8. The impact of gratitude on social well-being is so striking that this brief review does not do this topic justice, and this in part, is why I spend an entire chapter on the social implications of gratitude (see Chap. 8, for other more extensive reviews, see also McCullough, Kilpatrick, Emmons, & Larson, 2001; McCullough, Kimeldorf, & Cohen, 2008; McCullough & Tsang, 2004). The data seem to confirm Henry Ward Beecher's observation, "Gratitude is the fairest blossom which springs from the soul" (n.d., para. 1). In short, an important component of the goodness of gratitude is that it enhances one's social well-being.

4.4 Gratitude and Physical Well-Being

Although research in this area is still in its infancy, investigations have provided hopeful hints that indeed, gratitude enhances physical well-being as well as social and emotional well-being. As previously described, gratitude is clearly a positive affect, and some studies have shown that positive emotion provides health benefits. Perhaps the most extensive work in this regard comes out of the lab of Barbara Fredrickson. For example, she has shown that after a negative emotional experience, induction of positive emotional states returns the body back to a healthy cardiovascular condition faster than negative emotion or neutral emotion inductions (Fredrickson & Levenson, 1998; Fredrickson, Mancuso, Branigan, & Tugade, 2000; see also Kok & Fredrickson, 2010; Tugade, Fredrickson, & Feldman Barret, 2004). Further demonstrating the potential impact of positive affect on health, Danner, Snowden, and Friesen (2001) found that the more positive a nun's spiritual autobiography was in her early twenties, the longer she tended to live. This study was done with a particular order of nuns which improves its internal validity by removing a number of potential lifestyle confounds. Obviously however, this limits its external validity. Fortunately, this effect has been conceptually replicated in psychologists and professional baseball players (Abel & Kruger, 2010; Pressman & Cohen, 2011), who in no way can be accused as being an identical population to nuns. Thus, a number of studies are converging to support the idea that positive emotions enhance health. Given that gratitude is clearly a positive emotion, it is likely that gratitude also contributes to health. Indeed, many of the positive passages in the nuns' spiritual autobiographies were dominated by gratitude.

But clearly, it is somewhat of a leap to go from the findings that positive emotions promote physical well-being to concluding that gratitude promotes health. There are several studies that have looked more specifically at the relationship between gratitude and health. In a large twin study, Kendler et al. (2003) found that gratitude was associated with a reduced risk of substance dependence, which obviously has important health consequences. In this context it is interesting to note that Alcoholics Anonymous has advocated the importance of gratitude in the recovery from alcoholism long before gratitude was a popular topic for study. Otey-Scott (2008) found that grateful people (as defined by responses on the GQ-6) had significantly less poor physical health days than did less grateful individuals. Wood, Joseph, Lloyd, and Atkins (2008) found that trait gratitude was associated with several different sleep quality measures. Furthermore, they demonstrated that this effect was due to the impact of gratitude on pre-sleep cognitions. One implication of these findings is that the best time to count one's blessings might be right before going to sleep. In a study that investigated a more specific component of gratitude, Krause (2006) found that gratitude toward God buffered the impact of stress on health.

Once again, I should be quick to point out that these studies are correlational, and a likely alternative interpretation is that when people are healthy, they will be grateful for their condition. However, there are a few experimental studies

that have lent support to the theory that gratitude actually improves physical well-being. Several of the outcome variables in the experimental studies conducted by Emmons and McCullough (2003) were health related. In Study 1 participants in the counting blessings treatment actually exercised significantly more than those in the comparison conditions, and they also reported fewer physical symptoms. In Study 3 patients with neuromuscular disorders in the counting blessings condition reported better sleep quality than those in the no treatment group. Although the impact of counting blessings on health variables did not appear to be as robust as the effects on emotional well-being, these were important seminal findings suggesting that gratitude exercises could actually improve physical well-being. In another interesting study, Grenier, Emmons, and Ivie (2007) found that transplant recipients who completed gratitude journaling exercises reported better mental health, enhanced general health, and more vitality than transplant recipients in a control group. The effect on vitality is of particular interest, as results from several intervention studies suggest that reflecting on one's benefits may be invigorating (e.g., Emmons & McCullough). In another intervention study, Shipon (2007) found that those in his gratitude treatment group showed significantly greater decreases in systolic blood pressure compared to the treatment as usual group. Although these studies show promising results, clearly there is much work to be done in this area. Although the evidence is not as strong as that from the emotional and social well-being literature, there are encouraging results suggesting that gratitude may promote physical well-being as well as social and emotional well-being.

4.5 Conclusions

Why should gratitude be studied? In brief, it appears that gratitude is an important component of the good life. Emotional, social, and physical well-being are important to living well, and there is now compelling evidence that gratitude supports and contributes to these facets of human flourishing. If praise is an apt approximation of gratitude, C. S. Lewis's (1958, p. 94) conclusion appears to be appropriate: "Except where intolerably adverse circumstances interfere, praise almost seems to be inner health made audible."

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Chapter 5
What Are Grateful People Like? Characteristics of Grateful People

An humble mind is the soil out of which thanks naturally grow.

–Henry Ward Beecher

I conclude the "What of Gratitude" section with an exploration of what grateful people are like. In order to gain a full three-dimensional perspective on gratitude, it is essential that we understand the characteristics of those who are grateful. Understanding the qualities of grateful people provides suggestions as to what intrapersonal factors might promote gratitude. In studying the trait of gratitude it is tempting to explore it as a thing unto itself, but the trait of gratitude is only meaningful as it is embodied in a person. Thus, it is important to contextualize the virtue of gratitude, which is to say we must explore and explain the characteristics of grateful persons. As will become apparent, there is great diversity in grateful people—there is not a definitive prototype of the grateful person—but there are reliable commonalities that will help paint a picture of grateful people (albeit an impressionist painting at best).

How does one know a person? When observing an individual, how does one describe her uniqueness? I have found that McAdams' approach provides a very helpful organizational structure to the understanding of a person (e.g., McAdams, 1995; McAdams & Pals, 2006), and I shall follow his organization in this chapter. In terms of the uniqueness of a person, McAdams argues that there are three levels of explanation that need to be taken into account: general dispositions, characteristics adaptations, and narrative identity or life story. First, there are *general dispositions* that characterize individuals. These dispositions may be biologically based, they show little change over the life span, and probably are best described by the so-called "Big-5" personality traits (extroversion/introversion, neuroticism/emotional stability, agreeableness, conscientiousness, and openness). After defining some basic characteristics of grateful people, I will explore the basic dispositions of grateful individuals as described by the Big-5. Following this discussion, I will explain research relating to the characteristic adaptations

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of grateful people. According to McAdams, *characteristic adaptations* are more specific than general traits, and may be more subject to change. These "middle-level traits" include aspects such as self-concepts and self-schemas, characteristic virtues, typical emotion regulation strategies, and goals. This level answers such questions as "What do people want? What do they value? How do people seek out what they want and avoid what they fear? How do people develop plans, goals, and programs for their lives? How do people think about and cope with the challenges they face? What psychological and social tasks await people at particular stages or times in their lives?" (McAdams & Pals, p. 209). For McAdams, this level of person description fills in and fleshes out the more specific characteristics of the person.

Third, McAdams feels that in order to adequately understand a person one must understand their *life story* or their *narrative identity*. McAdams argues that people attempt to construct cohesive life stories that give their life meaning and purpose. Although there is very little research investigating the life stories of grateful people, in this section I will suggest what the narrative identities of grateful people should look like, and I will propose avenues for future research in this area.

I will then review a significant area in the psychology of gratitude: the spirituality of grateful individuals. Although this topic could be seen as falling under the rubric of "characteristic adaptations", one could also classify it as a salient life story of grateful people. Because it is an area with a rich data set, I have chosen to devote an entire section to this topic. To anticipate, grateful people tend to be religious and spiritual, and the specific characteristics of their spirituality prove to be a quite interesting and informative aspect of who grateful people are.

5.1 Guiding Theory for Understanding the Character of Grateful People

Although one of the goals of psychological science is to establish relationships between relevant variables, simply piling up correlations with trait gratitude is not likely to move our understanding of gratitude forward. We need to understand how these variables fit into to the larger body of psychological science. Here, theory can be very helpful in understanding a body of information. Thus, successful theories about gratitude should help us organize and understand the character of the grateful person. This seems to be particularly true for this area, for there are now a multitude of studies that have demonstrated relationships with trait gratitude. I will use two theories to help guide and organize the characteristics of gratitude: et al.'s moral affect theory (2001), and my gratitude amplification theory.

McCullough and colleagues (2001) argued that gratitude as an emotional state may best be seen as a moral affect; it is a moral barometer in that it provides a reading of how moral others have been to the individual, it is a moral reinforcer in that when one expresses gratitude, this reinforces moral behavior, and it is a moral motivator in that when one feels grateful they are inclined to act morally

toward others. McCullough and colleagues argued that if gratitude is indeed a moral affect, then individuals who experience gratitude easily, should be characterized by certain moral traits. They argued that grateful individuals should be particularly skilled in the interpersonal domain, and more specifically we should see that grateful individuals tend to exhibit moral behavior toward others. In this realm, they reasoned that grateful individuals should be high in agreeableness, and more specifically they should be high in empathy and perspective taking. Conversely, they predicted that grateful individuals should be low in narcissism.

The gratitude amplification theory makes similar predictions. To review, I have argued that gratitude is functional because it amplifies the good in one's life. In information processing terms, gratitude increases the signal strength of whom and what is good in one's life, and it also amplifies one's desire to do good to others. First, note that amplification is primarily a psychological process. This implies that those prone to gratitude should be more easily described in terms of "top-down" rather than "bottom-up" processes (Diener, Suh, Lucas, & Smith, 1999). In other words, processes internal to the person (top-down) are more likely to be predictive of trait gratitude than external circumstances (bottom-up). Personality traits should show a stronger relationship to trait gratitude than one's station in life.

Second, because gratitude amplifies the good in one's life, we should expect that grateful individuals will be positively oriented people in several ways. Gratitude amplifies the good that comes from outside sources, so grateful people should be particularly positive about others. In terms of the Big-5 personality framework, we should expect to see the strongest relationships between trait gratitude and agreeableness. Gratitude should also amplify the good from one's past, present, and future. Because gratitude increases the signal strength of the good in one's present experience, we should also see relationships between gratitude and extraversion. This is because extraversion may be most reflective of the so-called Behavioral Activation System (Gray, 1987). Individuals high in extraversion are very sensitive to reward, and thus should show increased enjoyment of present blessings. Because I argue that gratitude amplifies the good in one's ongoing experience, trait gratitude should be positively associated with extraversion.

Finally I submit that the gratitude amplification theory implies that grateful people should be particularly sensitive to grace in their lives. If gratitude amplifies the good one sees in others and the good one appreciates from the past, then they should be much more likely to see life and its blessings as unearned; they should be more likely to have a keen sense that life has been overly abundant to them. Conversely, if one is not a grateful person, then the goodness of others and the benefits from the past should go relatively unnoticed, leading not to a sense of grace, but rather to feelings of deprivation. Because less grateful individuals feel deprived in life, they may conclude that life has not afforded them the benefits they feel that they deserve. Thus, I submit that because gratitude amplifies the good in one's life, grateful individuals should be characterized by the quality of grace.

5.2 Three Pillars of the Grateful Person

I begin by describing some basic characteristics of grateful people. First, I describe three lower order characteristics of the higher order trait of gratitude that I have referred to as the "three pillars of gratitude." Although I briefly referred to these facets in Chap. 2, I feel that it is important to review these factors in order to glean a more complete picture of the grateful person. Recall that the grateful disposition refers to the affective trait of gratitude: grateful individuals are those who experience gratitude easily and often. The "three pillars of gratitude" describe those component attitudes that contribute to the more general attitude that "all of life is a gift." Thus, grateful people should have:

- A sense of abundance (or negatively, a lack of a sense of deprivation)
- An appreciation for simple pleasures, and
- An appreciation for others (or social appreciation).

If gratitude amplifies the good from one's past, then people who regularly experience gratitude should have a *sense of abundance*. One reason that people are grateful (i.e., high in trait gratitude) is that they feel that life has been overly abundant for them. The grateful person does not feel that life has been unfair, that they have not received their "just desserts", and that they are entitled to more benefits than they have received in life. Rather, grateful individuals have a sense of grace; that life has provided them with much more than they are entitled to. In our work, sense of abundance is the strongest lower-order factor of trait gratitude, and it typically shows the strongest relationships with subjective well-being (Watkins, Uhder, Webber, Pichinevenskiy, & Sparrow, 2003). If a sense of abundance is a crucial component of dispositional gratitude, this raises the question as to how one might foster this attitude. Although I know of no research that has investigated this question, I will offer particular suggestions in the application chapter (Chap. 13).

Secondly, if our model of dispositional gratitude is correct, grateful people should have a greater appreciation of *simple pleasures*. Simple pleasures are those day-to-day enjoyments that are not expensive, and sensation seekers might even find them "mundane." For example, one of my simple pleasures is wandering around a large bookstore with a good cup of coffee in my hand. Although my wife claims that this is an expensive hobby, often I won't even buy a book, and coming out of the store without a book doesn't seem to deter my enjoyment of this activity. There are likely to be large individual differences in what simple pleasures people find enjoyable, but one commonality seems to be in the enjoyment of nature, and I will explore this in more depth when discussing the relationship between gratitude and aesthetic appreciation. This seems to follow nicely from the gratitude amplification theory: if gratitude amplifies the good in one's present experience, then grateful individuals should be more likely to show an appreciation for simple pleasures.

The third "pillar of gratitude" is perhaps most obvious: grateful people appreciate others. If gratitude amplifies the good one sees in others, then people who regularly experience gratitude should have an appreciation for others. Grateful people are

characterized by the appreciation of what others have contributed to the good in their life. Not only do they appreciate the contribution of others, they recognize the importance of expressing their appreciation as well. Thus, for grateful people, gratitude is more than just a gnostic pursuit. Not only do grateful individuals enjoy reflecting on their benefits, they also embody gratitude in that they express their appreciation to their benefactors. I believe that these "three pillars of gratitude" are important for building the virtue of gratitude. Although these facets are more definitional than descriptive, they are still crucial in painting the picture of a grateful person. In sum, grateful people have a sense of abundance, they appreciate simple pleasures, and they appreciate others.

5.3 The Demographics of Gratitude

The diversity of gratitude is perhaps best demonstrated by the fact that demographics seem to be very poor predictors of trait gratitude. For example, in several studies we have failed to find any significant relationships of income with gratitude. One study that tangentially relates to this question found that the more money a spouse made, the more grateful their partner was for their contribution to the family income (Deutsch, Roksa, & Meeske, 2003). This finding would seem to be obvious, and it does not seem to speak very directly to how income might impact one's disposition for gratitude. This is an issue that would best be investigated in large-scale surveys with representative samples. One problem with using convenience samples of students is likely to be a restriction of range; students are likely to fall into a somewhat circumscribed income range. Even so, in a recent study we found that gratitude actually showed a slight but significant negative correlation with self-reported household income ($r = -.19$; Carabin, Floberg, Pereira, & Watkins, 2013). This study implies that those of higher income are less likely to be grateful, but large-scale survey studies should better help answer this question.

Although there appear to be important developmental issues when considering gratitude (see Chap. 11), in a number of studies we have failed to find that age predicts gratitude in any way. The restriction of range in our student convenience samples is probably even more problematic with age than income. Furthermore, older students are likely to be qualitatively different from more traditional younger students, which highlights the need for using larger more representative samples to adequately answer the age and gratitude question. I suspect that age has a stronger association with gratitude than does other demographics, with the elderly showing greater gratitude. Although age does not show strong relationships with subjective well-being, there is some evidence that happiness increases slightly with age. It may be that gratitude mediates this relationship, and research in this area could be revealing.

Are grateful people more likely to live in one place than another? In a study that examined character strengths in cities, Park and Peterson (2010) found some interesting geographical trends associated with the VIA strengths. Based on factor

analysis, Park and Peterson identified two factors that emerged out of the 24 strengths that they called "strengths of the head" and "strengths of the heart." "Strengths of the head" are more intellectual, individualistic and self-oriented (e.g., creativity and love of learning), whereas the "strengths of the heart" are more emotional, interpersonal, and other-oriented (e.g., love, kindness, honesty, and modesty). Gratitude was one of the "strengths of the heart." Cities with greater "strengths of the heart" tended to have warmer weather, have a larger proportion of families with children, were smaller and less crowded, had a lower cost of living, and people in these cities reported more positive affect and meaning in their lives. Is it that these heart oriented cities tend to draw grateful people? Or do these cities tend to foster gratitude? It is difficult to know what to make of these relationships, but Park and Peterson made some interesting suggestions that are well worth reading.

5.3.1 Gender and Gratitude

The one demographic that appears to show consistent relationships with gratitude is gender. Although not a large difference, studies reliably find that women report more trait and state gratitude than men (e.g., Kashdan, Mishra, Breen, & Froh, 2009; Pichinevskiy & Watkins, 2011; Watkins, Woodward, Stone, & Kolts, 2003), and there is some evidence that women are more likely to show grateful facial expressions following a favor (Ventimiglia, 1982). Because women tend to acknowledge and express emotion more than men (Barrett, Lane, Sechrest, & Schwartz, 2000; Fujita, Diener, & Sandvik, 1991; Grossman & Wood, 1993; Kring & Gordon, 1998), it would interesting for future research to investigate whether this gender bias is in any way unique to gratitude. But there are a number of compelling reasons as to why gratitude might be less prevalent in men than women. In what seems to be the most extensive investigation of this issue, Kashdan and colleagues (2009) found that women seemed to value gratitude more than men, and men reported fewer benefits derived from gratitude. Specifically, they showed that men found gratitude to be associated with more obligation and anxiety than did women. This finding is consistent with results from my lab (Uhder, Watkins, & Ovnicek, 2009). In this study we reanalyzed data from our "Debt of gratitude" paper (Watkins, Scheer, Ovnicek, & Kolts, 2006), and found that gratitude in response to the favor scenarios was much more strongly correlated with indebtedness for men ($r = .53$) than for women ($r = .12$, *ns*). We interpreted this finding as suggesting that women more clearly differentiate gratitude from indebtedness, and that the debt of gratitude is heavier for men than women. This is because when men experience gratitude, they are more likely to experience indebtedness or "an obligation to repay", which may decrease their enjoyment of grateful experiences. If men feel this way about gratitude, they may not be able to glean as many emotional benefits from gratitude exercises than women. On the other hand, one might argue that because men don't seem to recognize the benefits of gratitude as readily as women do, they have more to gain from gratitude interventions. Indeed, Froh and colleagues

(Froh, Yurkewicz, & Kashdan, 2009), presented evidence suggesting that adolescent boys gain more from a gratitude intervention than adolescent girls. In our recent gratitude intervention outcome study (Watkins et al., 2012), we found that women enjoyed the gratitude intervention more than men, but at 5-weeks follow-up men had gained significantly more from the treatment than women. The emerging pattern seems to be that although men do not value gratitude as much as women, they may actually have more to gain from gratitude interventions. Taken together, although it is apparent women tend to be more grateful than men, there are some intriguing complexities in the results that deserve more research consideration.

In sum, when considering the demographics of gratitude, other than gender, demographic variables show little association with gratitude. This suggests that when we try to paint a picture of a grateful person in terms of external characteristics (i.e., their income, age, race, etc.), a clear picture does not readily emerge, which seems to be testimony to the diversity of gratitude. Systematic studies on the demographics of gratitude have rarely been conducted however, and it would appear that large-scale surveys would provide more definitive answers to these questions. As stated earlier, because amplification is a psychological process, we would not expect to find strong relationships with demographics, and indeed, this appears to be the case. On the other hand, we should expect to see strong relationships between gratitude and top-down processes such as personality traits, and I now turn to this issue.

5.4 The Disposition of Grateful People

Perhaps one of the most influential findings in the science of personality in the past 40 years is that five general traits or dispositions, "do a reasonably good job of summarizing and organizing the universe of trait descriptors" (McAdams & Pals, 2006, p. 208). Goldberg (1981)—one of the first to recognize the "Big-5"—argued that these five personality dimensions likely answer basic questions about human adaptation, and may relate to basic brain systems. These five fundamental traits are commonly held to be Neuroticism (vs. Emotional Stability), Extroversion (vs. Introversion), Agreeableness, Conscientiousness, and Openness (Goldberg, 1993; John & Srivastava, 1999; McCrae & Costa, 1999). Behind the Big-5 theory is the idea that when we know how a person stands on these five dimensions, we can gain a pretty clear picture of the basic traits that define this person. Thus, to gain a basic understanding of the grateful person it is important to understand the Big-5 profile of grateful persons.

When reviewing findings from the various studies that have investigated the relationship of trait gratitude to the Big-5, the first striking observation is how inconsistent the results appear to be. This may be in part because the Big-5 does not appear to share a large amount of variance with trait gratitude (McCullough et al., 2002; Saucier & Goldberg, 1998; Whitney, Watkins, Gibler, McComb, & Kolts, 2003), and thus is clearly distinct from the Big-5. In other words, trait gratitude cannot be adequately explained in terms of the Big-5, and hence studies show a fair

amount of variance when correlating dispositional gratitude with these five traits. Different trait gratitude measures and different measures of the Big-5 are likely to account for some of the inconsistencies as well. One Big-5 trait however, is reliably associated with trait gratitude across measures and cultures: Agreeableness.

If gratitude amplifies the good one sees in others, then grateful people should tend to be more agreeable. In a number of studies that have investigated the Big-5 markers of grateful people, Agreeableness has been found to be most strongly correlated with trait gratitude (Chen, Chen, Kee, & Tsai, 2009; Littman-Ovadia & Lavy, 2011; McComb, Watkins, & Kolts, 2004; McCullough et al., 2002, Studies 2 and 3; Neto, 2007; Saucier & Goldberg, 1998; Whitney et al., 2003, with the GQ-6 but not with the GRAT). This finding appears to hold with informant reports as well (McCullough et al., 2002, Study 1). Agreeable people are those who are prosocial and communal in their basic disposition, who value cooperating with their group over the importance of self-expression (John & Srivastava, 1999). People low in Agreeableness tend to be antagonistic toward others. Some studies have evaluated the facets or subscales of the Big-5, and the facets of Trust, Altruism, Forgiveness, and Tender-Mindedness most strongly correlate with gratitude (Uhder & Watkins, 2012; Wood, Joseph, & Maltby, 2008, 2009). These findings are consistent with the moral affect theory of gratitude (McCullough, Kilpatrick, Emmons, & Larson, 2001), which predicted that the grateful disposition should be associated with prosocial personality characteristics. If gratitude amplifies the good one sees in others, and it amplifies one's motivation to do good toward others, then we would expect the most notable characteristic of grateful people to be Agreeableness. Thus these results also provide support for the gratitude amplification theory. Taken together, these findings imply that grateful people tend to: be oriented toward others, trust others, be prosocial, be non-judgmental, desire reconciliation, do not hold grudges, and are compassionate.

Two studies did not find Agreeableness to be the strongest correlate of gratitude, and in both cases Extroversion was most strongly related to gratitude (Uhder & Watkins, 2012; Wood et al., 2008). These somewhat divergent findings are likely due to the use of different Big-5 measures, and indeed, some of the facets of Extraversion that correlate most strongly with gratitude would seem to be more related to traditional understandings of agreeableness (e.g., Warmth on the NEO-PI, Wood et al., 2008, 2009; and Sociability on the HEXACO, Uhder & Watkins, 2012). Some have argued that Extroversion is largely reflective of the Behavioral Approach System in the brain (Gray, 1987), and thus should be related to how easily and often an individual experiences positive emotions. Indeed, in analyses of the facets of Extroversion, Wood et al. (2008, 2009) found that the strongest correlations were with the Positive Emotions facet, and we found that Liveliness was the strongest Extroversion facet to correlate with gratitude from the HEXACO. Thus, more than likely, the association of Extroversion with gratitude is due to grateful individuals being moderately high in positive affectivity.

Although studies are somewhat inconsistent, trait gratitude usually is negatively correlated with neuroticism. The findings are somewhat curious here, as some studies find no relationship between gratitude and neuroticism (Chen et al., 2009; Neto, 2007; Uhder & Watkins, 2012), and others find moderate to strong inverse

correlations (McComb et al., 2004; McCullough et al., 2002, Studies 2 and 3; Whitney et al., 2003). It makes sense that a tendency to easily experience negative affect should discourage gratitude. However, because trait gratitude is the disposition for the positive affect of gratitude and positive and negative affectivity are probably independent dimensions, it follows that gratitude should be more strongly and consistently related to positive than negative affectivity. Hence, correlations between gratitude and extroversion are more consistently found in the literature. An important issue arises here as to whether trait gratitude prevents negative affectivity, and because this is an issue with important practical implications I have devoted an entire chapter to the relationship between gratitude and negative affectivity (Chap. 10).

Relationships between gratitude and Openness are even more puzzling than the findings with neuroticism. Saucier and Goldberg (1998) found a significant negative relationship between gratitude and openness ($r = -.24$), others have found no relationship between the two traits (McComb et al., 2004; McCullough et al., 2002, Study 3; Whitney et al., 2003), and still others have found reliable positive associations with gratitude (Chen et al., 2009; McCullough et al., 2002, Studies 1 and 2; Neto, 2007; Uhder & Watkins, 2012; Wood et al., 2008, 2009). Again, the variety of results may be due to different measures and populations, and/or it may be because of difficulties with the construct of openness. In fact, there is quite a debate as to what this factor actually entails, and this is reflected by the different names this factor has received (Openness, Open-mindedness, Openness to Experience, Intellect, Culture, etc.). As I look at these divergent results, it seems to me that the more cognitive aspects of openness such as creativity, critical thinking, unconventional thinking, and curiosity, seem to be either uncorrelated or even negatively correlated with gratitude. On the other hand, the more emotional aspects of openness such as Openness to Feelings and Aesthetic Appreciation show positive relationships with trait gratitude (Uhder & Watkins, 2012; Wood et al., 2009). I will discuss aesthetic appreciation in more depth below in the "Characteristic Adaptations" section. I propose there is one cognitive aspect of openness not typically measured by Big-5 measures that may be an important characteristic of grateful people. I submit that grateful people are open to seeing good in events and experiences that may not be seen as good by most individuals. This is closely related to positive reappraisal of negative events, and some research suggests that this is an important characteristic of grateful people. I will discuss this issue in more detail in the chapter on coping and gratitude (Chap. 9).

In sum, what is the disposition of the grateful person? Most notably, grateful people tend to be oriented toward others. They want to get along, they want to do things for others, they trust others, and feel compassion for others. The grateful person may also be described as a cheerful person; they are given to experience positive emotions, especially in social situations. As I conclude this section I must do so with a warning and an encouragement: the results in this area are surprisingly inconsistent, and thus there is need for gratitude scholars to engage in more careful analysis and further research on the relationships between gratitude and the traits of the Big-5. Studies that include more diverse populations and use several different Big-5 and trait gratitude measures would perhaps explain the inconsistencies in the literature.

5.5 The Characteristic Adaptations of Grateful People

We now turn to characteristic adaptations that have been found to be associated with gratitude. These are more specific aspects than basic dispositions, and are probably more malleable as well. Before describing positive characteristics of gratitude, it may be helpful to discuss attributes that are not typical of grateful people. At least four traits have found to be inversely correlated with gratitude: materialism, envy, indebtedness, and narcissism (Diessner & Lewis, 2007; Froh, Emmons, Card, Bono, & Wilson, 2011; Lambert, Fincham, Stillman, & Dean, 2009; McLeod, Maleki, Elster, & Watkins, 2005; Polak & McCullough, 2006; Ruge, Van Gelder, Brown, Gibler, & Watkins, 2007; Thomas & Watkins, 2002; Van Gelder, Ruge, Brown, & Watkins, 2007; Watkins et al., 2003). Because these traits might serve to inhibit gratitude I have devoted an entire chapter to this issue (Chap. 12), and thus I will not discuss these relationships further here. In painting the picture of the grateful person however, it is important to remember that grateful people tend to be non-materialistic, and they are not characterized by envy, indebtedness, or arrogance.

On the positive side, I begin with a somewhat surprising finding: grateful people tend to have an *internal* locus of control (Watkins et al., 2003, Study 2). One might think that grateful people would have an external locus of control because they are grateful for benefits from external sources, thus not focusing on their own contributions to their well-being. When we initially designed a study to investigate this issue, one of my students predicted that gratitude would be associated with an external locus of control, but I felt that we probably wouldn't find any relationship between the two constructs because the relationship might be fairly complicated. I reasoned that although grateful people do appreciate how others contribute to their well-being, this does not exclude them acknowledging their own contributions. But surprisingly, we found a moderate *positive* association between trait gratitude and internal locus of control ($r = .33$). Upon reflection, this makes some sense. A person with an internal locus of control does not expect others to contribute to their future well-being; they believe that they themselves are in control of their well-being. Therefore, following the principle of recognizing the gratuitousness of the gift (see Chap. 3), when others do contribute to their welfare this goes beyond their expectations and hence they are more likely to recognize and appreciate the contribution. This might imply that overly dependent individuals would be less grateful because they expect others to insure their well-being. When people provide benefits to dependent individuals, this is what is expected of them, and thus the dependent person is not likely to feel very grateful. Interestingly, in this study we used a locus of control scale that also contained a subscale that taps a maladaptive extreme internal locus of control (Belief in Personal Control Scale, Berrenberg, 1987). Notably, trait gratitude was not associated with this factor ($r = .08$, *ns*). So grateful people tend to have an internal locus of control, but not an exaggerated or maladaptive sense of control. I know of no recent research that has explored this relationship further, but these investigations might be revealing.

If gratitude amplifies the good in one's past and present experience, then it should follow that gratitude should amplify the good that one might see in their future. Thus, grateful people should be optimistic and hopeful, and indeed research has confirmed that this is the case (e.g., McCullough et al., 2002). This appears to be a fairly strong relationship (correlation between the GQ-6 and dispositional optimism: $r = .51$, with hope/agency: $r = .67$, with hope/pathways: $r = .42$). If people feel grateful for goodness in their past, this is likely to translate into hope for similar goodness in the future (see Schacter, Addis, & Buckner, 2007). Although it could also be that optimism creates gratitude, there is some evidence that gratitude actually causes increased optimism about the future. In Study 1 of Emmons and McCullough's (2003) gratitude intervention paper, they found that those in the counting blessings treatment felt better about the upcoming week than did controls.

Hope and optimism are important aspects of emotional well-being, as is emotional intelligence. Briefly, emotional intelligence has been defined as "the capacity to process emotional information accurately and efficiently, including that information relevant to the recognition, construction, and regulation of emotion in oneself and others" (Mayer & Salovey, 1995, p. 197). By amplifying the good in one's life, gratitude might provide a better perspective on life that allows one to accurately identify, understand, and modify one's emotional states. In this sense, trait gratitude might promote emotional intelligence. We investigated this theory by comparing trait gratitude to different emotional intelligence scales in two studies (Watkins, Christensen, Lawrence, & Whitney, 2001). In Study 1, participants completed the GRAT along with the Trait Meta-Mood Scale (TMMS; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). The TMMS contains three scales: Attention to Mood, Emotional Clarity, and Mood Repair. Consistent with our predictions, the GRAT was significantly related to the total TMMS ($r = .57$), as well as to all three scales. The GRAT was most strongly related to the Mood Repair scale ($r = .62$). This evidence supports the idea that gratitude may promote a perspective on life that assists one in adaptively responding to unpleasant mood states. Indeed, grateful people seem to be particularly adept at coping with difficult events, and I will explore this further in Chap. 9. In psychology we have tended to treat self-awareness as uniformly adaptive, but recent work has shown that some forms of self-awareness are adaptive and others can be maladaptive. In Study 2 we compared the GRAT to another emotional intelligence measure that taps both adaptive and maladaptive mood awareness (the Mood Awareness Scale, Swinkels & Giuliano, 1995). Importantly, trait gratitude was positively correlated with adaptive mood awareness (Mood Labeling scale: $r = .46$), but was unrelated to maladaptive mood awareness (Mood Monitoring scale, $r = -.06$, *ns*). Our preferred explanation was that trait gratitude creates a mindset that improves emotional intelligence, but it could well be that emotional intelligence is required for grateful responding. Perhaps a more likely scenario is that gratitude and emotional intelligence impact each other in a reciprocal fashion. Whatever the case, is seems clear that grateful people are characterized by emotional intelligence.

If gratitude amplifies the good in one's life, then grateful people should notice and appreciate simple pleasures. Appreciating beauty can be seen as a common

simple pleasure, thus we should expect to see that grateful individuals show an enhanced appreciation for beauty. Several studies have demonstrated that there is a reliable association between gratitude and aesthetic appreciation. Indeed, in studies of gratitude that have found an association between gratitude and openness, this correlation may primarily be due to the association between gratitude and aesthetic appreciation, which is usually held to be an important facet of this construct (e.g., Uhder & Watkins, 2012; Wood et al., 2008; but for a contrasting finding see Wood et al., 2009). Diessner, Solom, Frost, and Parsons (2008) conducted the most extensive investigation of this issue. In this article the authors described the development of their Engagement with Beauty Scale (EBS), and found that it was significantly associated with trait gratitude as measured by the GRAT ($r = .47$). The GRAT was most strongly correlated with the EBS subscales of natural and moral beauty appreciation, and less so with artistic beauty appreciation. Thus, grateful people can be characterized as having an appreciation for beauty, particularly an appreciation for natural and moral beauty.

There are also a number of specific socially relevant traits that characterize grateful people. For example, grateful individuals have been found to have more empathy for others (McCullough et al., 2002). This enhanced dispositional empathy was revealed in both perspective taking and empathic concern. Perhaps this is why several studies have found an association between dispositional gratitude and forgiveness (e.g., McCullough et al., 2002, Study 2; Neto, 2007; Uhder & Watkins, 2012), as the ability to empathize with an offender has been shown to promote forgiveness. Indeed, Neto (2007) found that gratitude predicted forgiveness after controlling for Big-5 traits. One problem with self-report based research in this area is that researchers have documented somewhat of a discordance between how individuals report their general forgiveness and their willingness to forgive in specific transgressions. In a thesis conducted in my lab, Dawn McComb found that inducing gratitude enhanced the likelihood of individuals to forgive a specific transgression. There were several methodological issues in this study however, and so more work needs to replicate this finding.

Moreover, McCullough and colleagues (2002) demonstrated that dispositional gratitude was associated with a number of other prosocial traits. Study 1 of this paper was unique in that it included peer ratings of prosocial behaviors. They found that peer ratings of volunteering time to help others, generosity, and unselfishness were all significantly correlated with self-reported gratitude (these were also significantly correlated with peer ratings of the participants' gratitude). Moreover, self-reported trait gratitude was negatively associated with peer ratings of participants' expectations for others to do favors for them. Clearly, grateful people can be characterized as possessing prosocial traits. These findings support both the moral affect theory and the gratitude amplification theory. If gratitude amplifies the good one sees in others, then individuals who frequently experience gratitude should be characterized by prosocial traits. Indeed, this seems to be the case.

The prosocial aspects of grateful individuals may be because grateful people are characterized by secure attachment tendencies (see e.g., Lystad, Watkins, &

Sizemore, 2005), and because this is an issue important to the development of gratitude, I will discuss this in more depth in Chap. 11.

An important aspect of the grateful person is her self-concept. How do grateful people view themselves? In several studies, we have found that gratitude is positively correlated with self-esteem, and sometimes this is a strong association (e.g., $r = .58$, McLeod et al., 2005; Spangler, Sparrow, Webber, Walker, & Watkins, 2011; Van Gelder et al., 2007). Indeed, some have suggested that self-esteem might be one mechanism whereby gratitude enhances well-being. When one experiences gratitude they are implicitly acknowledging that others feel they are worthy of their favor, and this might enhance self-esteem. We attempted to test this relationship by manipulating gratitude and observing its impact on self-esteem (Spangler et al., 2011), and although the means were in the expected direction, no significant effect was found. It is possible that a certain level of self-esteem is required for people to experience gratitude. If a person does not feel they are worthy of benefits, they may not gladly accept the gift and hence fail to experience gratitude. More research needs to investigate the relationship between self-esteem and gratitude, but it is clear that grateful people tend to have higher self-esteem. Just as gratitude amplifies the good in others, gratitude also seems to amplify the good in one's self.

An often overlooked but important aspect of one's view of one's self is found in humility. A number of authors have proposed that humility should be associated with gratitude because a certain amount of humility is required to experience gratitude. If I cannot admit a certain need for dependence on others—that others have the capacity to enhance my well-being—then it is unlikely that I will experience much gratitude because I will not be able to gladly accept benefits from others. Humility has been defined as a willingness to accept one's weaknesses (as well as one's strengths), low self-focus or self-forgetfulness, and an ability to keep one's abilities and accomplishments in perspective (Emmons, 1999; Furey, 1986; Tangney, 2000, 2002). Of course, one of the great challenges of this area is in the measurement of humility. If one reports that they are indeed humble, this seems to be more reflective of a Uriah Heep kind of mentality rather than true humility. However, there have been some advancements in the measurement of humility recently (e.g., Davis et al., 2011; Kopp, Hill, Bollinger, & Williams, 2006; Lee & Ashton, 2004; Rowatt et al., 2006) and we have used some of these measures to investigate the relationship of gratitude with humility. Based on a novel factor rotation of personality traits, Lee and Ashton (2004) developed the HEXACO scale. What is unique about this scale is that they argue that there is a sixth factor to add to the Big-5, which they labeled "honesty-humility." In our study (Uhder, Watkins, & Hammamoto, 2010) we evaluated trait gratitude as measured by the GRAT and the GQ-6, and compared it with humility as measured by a new self-report humility measure (Kopp et al., 2006), and the HEXACO. Gratitude was moderately related to humility as assessed by the Kopp et al. measure (GRAT: $r = .50$; GQ-6: $r = .39$). Moreover, correlations between gratitude and the Honesty-Humility scale were also significant (GRAT: $r = .28$; GQ-6: $r = .19$). The Modesty facet of the Honesty-Humility factor was also significantly related to trait gratitude (see also Rowatt et al., 2006). Furthermore, some work has suggested that gratitude promotes

"ego transcendence" (a willingness to "forego the ego" and accept a communal relationship in the context of a gift, Algoe & Stanton, 2011), and Matthews and Green (2010) found that both dispositional and experimentally induced self-focus inhibits the experience of gratitude. Because theoretically humility involves a sense of self-forgetfulness, both of these findings seem to support the link between humility and gratitude. Many interesting questions remain here. What do informants say about the humility of grateful people? Is humility a prerequisite for gratitude or does gratitude promote humility? Is humility an important moderator variable when evaluating grateful responses to benefits? Are humble people more likely to attribute benefits to external sources? I believe that further explorations of this important link will elucidate the nature of both humility and gratitude. Preliminary work suggests that grateful people tend to be humble people, and this may be an important prerequisite for gratitude. Compte-Sponville (2002, pp. 135–136) beautifully summarized the relationship between humility and gratitude:

> What gratitude teaches us, however, is that there is also such a thing as joyful humility, or humble joy, humble because it knows it is not its own cause or its own principle and, knowing this, rejoices all the more (what a pleasure to say thank you!); because it is love, and not primarily love of self; because it knows it is indebted, or rather—since there is nothing to repay—because it knows it has all it could wish for and more, more than it had hoped for or could have expected, all thanks to the existence of the very person or thing responsible for this joy.

We are now ready to summarize the specific traits that compose the characteristic adaptations of grateful people. First, grateful people tend to be low in materialism and envy. Furthermore, they tend not to feel obligated to repay (or indebted) when given benefits by others. But this does not mean that grateful people just soak in benefits from others without any effort to help others. Indeed, many of the specific characteristic adaptations of gratitude may be characterized as prosocial: grateful people trust others, they help others, they have empathy for others, and they forgive others and do not hold grudges. Although grateful people acknowledge the importance of others in their lives, they do not appear to be dependent on others in an unhealthy way. Indeed, they feel that they are basically in control of their well-being, and as such feel hopeful and optimistic about the future. Although grateful people enjoy life, they do not tend to seek out spectacular pleasures; for grateful people life is about appreciating the day-to-day simple pleasures that all can enjoy. In this sense, grateful people seem to particularly enjoy the beauty of nature. Finally, although the grateful person has positive regard for herself, she is not arrogant or narcissistic. Indeed, humility seems to be a core feature of grateful persons. Although I have explored the specific traits that make up the characteristic adaptations of gratitude, these traits do not exhaust this domain. It is important to evaluate the goals and life stories of grateful people as well.

An important aspect of the grateful person is his goals in life. A straightforward definition of goals is "internal representations of desired states" or more simply: "what people are trying to do in life" (Austin & Vancouver, 1996, p. 338). Thus, to understand the grateful person we must understand what they are trying to do in life. Unfortunately, there is very little direct research on this issue as it relates

to gratitude. One study that tangentially relates to this question looked at the relationship of the VIA strengths to different orientations to happiness (Peterson, Ruch, Beerman, Park, & Seligman, 2007). The theory here is that one can seek happiness in different ways. These authors emphasized three primary paths that people take on their road to happiness: pleasure, engagement (losing one's self in one's activities), and meaning. Although gratitude was significantly related to both the pleasure and engagement pathways, it appeared that the primary way that grateful people seek happiness is through meaning. By implication, we may surmise that many of the goals of grateful people would be characterized as goals in the pursuit of meaning.

This finding leads to theorizing about the goals of grateful people: I submit that the goals of grateful people should be characterized as intrinsic rather than extrinsic pursuits. If gratitude amplifies the good in life, then grateful people should be able to clearly identify those goals that are organically conducive to their well-being (i.e., intrinsic goals). Thus, the goals of grateful people are more likely to be characterized by seeking relationship and character improvement, and grateful people should be less likely to value goals relating to money, fame, and personal beauty. Some indirect support exists for this idea. Peterson and Stewart (1996) found that if women were grateful toward their mentors as young adults, they were more likely to be classified as generative in mid-life. Generativity was a construct coined by Erikson (1963, 1969) that refers to a person's commitment to advancing the well-being of the next generation through various altruistic pursuits (e.g., parenting, teaching, etc.). Peterson and Stewart's finding suggests that grateful women were more likely to have intrinsic goals. Only one study that I know of directly examined the goals of grateful people. Emmons and Kneezel (2005) found that trait gratitude was positively correlated with goals that were aimed at increasing one's intimacy with God. Because this is an issue important to the spirituality of gratitude, I discuss this study more extensively below. Future research that evaluates the goals of grateful people would provide an important missing piece of the picture of a grateful person.

5.6 The Life Stories of Grateful People

Dan McAdams has amassed an impressive research program on the life stories of people, and he has presented compelling arguments that one's life story is an important aspect of what defines them as a person (McAdams, 1995). According to McAdams, life stories help a person make sense of their past and give them direction for the future. If life stories are an important aspect of what defines a person, then research about the life stories of grateful people would seem to be important. Unfortunately, there is little if any direct research on this issue, but McAdams and Bauer (2004) provide some helpful theoretical guidance. Following their approach, I submit that the life story of a grateful person will be a grateful story. Perhaps this is only too obvious, but nonetheless I believe it is important to describe what this means. By grateful story, I first go back to my supposition about the fundamental

attitude underlying trait gratitude: that all of life is felt to be a gift. How would this play out in a person's life story? Here, I believe that McAdams' work on the life narratives of highly generative people is informative to what we might expect the life stories of grateful people to look like (McAdams, Diamond, de St. Aubin, & Mansfield, 1997). McAdams has found that the life stories of generative individuals often contain themes of thanksgiving (McAdams & Bauer, 2004), and earlier we have seen evidence that generative people tend to report gratitude toward their mentors from the past (Peterson & Stewart, 1996). McAdams and colleagues present compelling evidence that the life stories of generative individuals are essentially commitment stories. Commitment stories are characterized by five themes: an awareness of early blessing or advantage, an awareness of the suffering of others, moral steadfastness or certitude, redemptive sequences, and prosocial aspirations for the future. I submit that all of these themes are likely to be found in the life stories of grateful people, but two should be of most importance: early blessing and redemptive sequences.

By early advantage or blessing, McAdams refers to the finding that generative people tend to report that early in their life they were aware gaining some kind of special advantage, and there seems to be an implication that this advantage or blessing was not necessarily deserved or earned. This awareness of early blessing is magnified in the context that they are also aware that others are suffering and others do not have the advantages that they have. One of my early memories is of wondering why I was born into the family and situation that I was in, rather than in another situation that might have been poverty-stricken. This illustrates that sense of early underserved blessing that is amplified by the awareness that I am blessed with benefits that others might not have.

By *redemptive sequences* McAdams means that for generative persons, a bad event often turns out for the good. For example, the break up of a romantic relationship might provide opportunities for personal growth that would not have otherwise occurred. Perhaps a disappointment such as losing an administrative position provides a professor with an opportunity to pursue a meaningful and invigorating research program that they would not otherwise have been able to pursue (a personal redemptive sequence for me). I submit that grateful individuals will have life stories that are filled with good events that don't turn sour, but more importantly the story that "all of life is a gift" should be characterized by redemptive sequences. I know of no research that has directly investigated this question, but in one study we asked individuals to recall specific kinds of events from their life for 3 min each, and one of those recall cues was redemptive events (Contreras & Watkins, 2005). Proportion of redemptive memories recalled was moderately to strongly related to state and trait gratitude. Indeed, these relationships were found to be independent of life satisfaction and depression. Although these are interesting results, it would seem that a better design would be to follow the approach of McAdams and ask grateful participants to actually tell their life story. Gratitude amplifies the good from one's past in part, because these blessings are seen as undeserved gifts, and redemptive events are likely to be seen as gifts of grace. I predict that the life stories of grateful individuals will be characterized by themes

of unearned early blessing, and redemptive sequences. What is striking about these themes is that they are both characterized by grace. Grace is inherent in unearned blessings, and bad events that turn good are likely to be viewed as events of grace. In sum, the life story of the grateful person should be a grateful story: all of life is perceived to be a gift, and in that sense, the grateful life story is a narrative of grace.

5.7 The Spirituality of Grateful People

From the beginning of the recent wave of gratitude research researchers have been interested in how spirituality and religiosity are associated with gratitude. A simple summary of the findings is that grateful people tend to be religious people. I should be quick to emphasize that religiosity is not a requirement for gratitude—there are many non-religious people who are nevertheless grateful—but a number of religious variables show moderate to strong correlations with trait gratitude. For example, several studies have found that grateful people score higher on measures of spiritual transcendence (Diessner & Lewis, 2007; McCullough et al., 2002; McCullough, Tsang, & Emmons, 2004; Uhder & Watkins, 2012) and intrinsic religiosity (McCullough et al., 2004; Tsang, Schulwitz, & Carlisle, 2011; Uhder & Watkins, 2012; Watkins et al., 2003). Spiritual transcendence refers to a non-denominational spirituality where an individual is able to stand outside of her or his immediate place in time and space, and see one's place in the context of "the big picture." Individuals high in spiritual transcendence are able to see that life has a larger meaning beyond the self. Intrinsic spirituality refers to Allport's concept of mature religiosity (Allport & Ross, 1967). Intrinsically motivated religious individuals are those who engage in religious behavior because their religion is of utmost importance to them, whereas extrinsic individuals are only interested in religion to advance their non-religious goals (such as economic or social status enhancement). In this context, studies have found that grateful people tend to report that religion is more important to them (Emmons & Kneezel, 2005; McCullough et al., 2002). In our first study to investigate this issue (Watkins et al., 2003), we found that trait gratitude was positively correlated with intrinsic religiosity but negatively correlated with extrinsic religiosity. Although the inverse association with extrinsic religiosity is not always found, significant positive associations are rarely found with this scale. Interestingly, several studies have shown that Quest religiosity has no relationship with trait gratitude (McCullough et al., 2002, 2004). Grateful individuals have also been found to feel nearer to God (McCullough et al., 2002; Watkins, Xiong, & Kolts, 2008), and they have a more secure attachment to God (Uhder & Watkins, 2012). This trend appears to extend beyond the Christian tradition, as religiosity in Muslim youth is also associated with gratitude (Ahmed, 2009).

In addition to the presence of religious traits in grateful individuals, studies have also found enhanced religious behaviors. For example, McCullough et al. (2002) found that grateful people were more likely to report more frequent attendance of religious services, more frequent reading of Scripture and other religious materials,

and even more religious friends (see also Emmons & Kneezel, 2005). Another important aspect of spiritual behavior is how people cope in a spiritual manner with difficult events. In their study of the spiritual correlates of gratitude, Emmons and Kneezel (2005) administered the Religious Problem Solving Scale (Pargament, 1997). This measure contains three scales that tap different modes of religious coping. They found that gratitude was more strongly correlated with collaborative problem solving than with the "Deferral" style. This suggests that grateful people are most likely to attempt to collaborate with God to solve their problems, rather than simply deferring all the responsibility to the Divine to get them out of trouble. It should be mentioned however, that the "Deferral" problem solving approach was also positively associated with trait gratitude, although this was a small correlation. It is likely that grateful individuals tend to prefer the collaborative style, but in situations that are beyond their control, they then completely give the situation over to God. Interestingly, the tendency to solve problems without God's help and support was negatively associated with gratitude. These are interesting patterns that deserve more research attention.

One of the ways that religious individuals cope with their problems is through prayer, and indeed prayer is an important spiritual activity for religious individuals that extends beyond dealing with stressful situations. Thus it is important to consider prayer behavior in grateful individuals. In every study that has administered the Spiritual Transcendence Scale, moderate positive correlations are found between the Prayer Fulfillment subscale and trait gratitude (Emmons & Kneezel, 2005; McCullough et al., 2002; Uhder & Watkins, 2012). Moreover, grateful people report more frequent prayer than less grateful individuals (Emmons & Kneezel, 2005; Lambert, Fincham, Braithwaite, et al., 2009; McCullough et al., 2002). Researchers in the psychology of religion have recognized that prayer takes many different forms (e.g., Laird, Snyder, Rapoff, & Green, 2004; Poloma & Pendleton, 1991). "Thanksgiving" and "Adoration" are often included in the taxonomy of prayer types, and it could be argued that both of these are forms of grateful prayer. One would think that grateful individuals would engage in more grateful prayer relative to less grateful individuals, but this issue remains to be investigated. Interestingly however, several studies have found that thanksgiving and adoration prayer types are positively associated with well-being (Laird et al., 2004; Whittington & Scher, 2010). An obvious problem with these findings is that it could be that people are happy because life has been treating them well, and because life has been providing good things they are thanking God for these benefits. In an intriguing series of studies however, Lambert, Fincham, Braithwaite, et al. (2009) showed that prayer actually enhances gratitude. Because of the implication these studies have on the nature of the gratitude/religiosity relationship, I will expand on these studies below, but for now it is important to highlight that there is a notable association between prayer and gratitude. I believe that this is an intriguing aspect of the spirituality of grateful people, and in particular it seems that investigations of grateful prayer would be fruitful.

As referred to earlier, one of the only studies to research the goals of grateful people specifically investigated spiritual goals (Emmons & Kneezel, 2005). These

authors administered Emmons' Personal Strivings Assessment Packet (Emmons, 1999), along with trait gratitude measures and other measures of spirituality. With this particular goals measure participants first list eight personal strivings or goals. After listing these goals participants are then asked to rate each goal on a number of dimensions, such as importance, commitment, and autonomous motivation. What was unique about this particular administration was that they also asked participants to rate their goals on three spiritual dimensions: (1) how much each goal enabled them to feel close to God, (2) how much each goal reflected what God wanted for their life, and (3) how much they experienced God through each goal. Trait gratitude was positively associated with all three of these dimensions. Stated differently, grateful people felt that their goals helped them to pursue intimacy with God, their goals were more a part of God's will, and these goals were more likely to enhance their experience with God. The goals of grateful people appeared to be more theocentric than the goals of less grateful persons.

Recently a new area of research has emerged that is clearly relevant to the spirituality of grateful individuals: gratitude toward God. Gratitude researchers have primarily focused on human benefactors, but every major monotheistic religion encourages gratitude toward God, and because most people in Western cultures believe in God, this would seem to be an important form of gratitude to investigate. Indeed, Jonathan Edwards, in his classic treatise *Religious Affections*, concluded that gratitude toward God may be qualitatively different than general gratitude: "There is doubtless such a thing as a gracious gratitude, which does greatly differ from all that gratitude which natural men experience" (Edwards, 1999/1746, p. 298). In a seminal study in the psychology of religion, Allport and colleagues found that people cited parental influence as the strongest influence on their sense of a need for religious sentiment (Allport, Gillespie, & Young, 1948). Although this result has been conceptually replicated in many studies, a frequently overlooked finding of this study was that "gratitude" was the fourth most frequently mentioned influence on their need for religious sentiment (37 % of subjects mentioned this effect). Furthermore, in a study of Roman Catholic nuns and priests, Samuels and Lester (1985) found that gratitude was the second most frequently experienced emotion toward God (behind love). Moreover, several studies have found that gratitude toward God might be important to well-being in that gratitude toward God appeared to serve as a buffer for stress in impoverished elderly individuals (Krause, 2006), and gratitude toward God is important to the spirituality of the elderly (Krause & Ellison, 2009).

In order to further research into this area my students and I have developed the 14-item Gratitude toward God scale (GTG-S) that appears to have good psychometric properties (Uhder, Webber, & Watkins, 2010; Watkins, Uhder, Webber, Pichinevenskiy, & Sparrow, 2011). Most of the items on this measure were developed by changing items from the GQ-6 and the GRAT to make them focused on a divine benefactor. For example, the GRAT item "I think that it's important to pause often to 'count my blessings'", was changed to "I think that it's important to regularly remember the good things God has done for me." Two lower order factors emerged and were consistent across two populations: Gratitude for God's

Benefits, and Lack of Bitterness toward God. We found that the GTG predicted both general and spiritual well-being, but seemed to be particularly important to the spiritual well-being of believers. Indeed, we found that gratitude toward God predicted spiritual well-being 1 month later after controlling for initial levels of spiritual well-being (Watkins et al., 2011). In both of these studies gratitude toward God seemed to be particularly important to intimacy with God, and these findings are consistent with a recent qualitative study that investigated gratitude toward God in elderly individuals (Krause, Evans, Powers, & Hayward, 2012). Recent work has indicated that gratitude toward God is distinct from general gratitude (Rosmarin, Piruntinsky, Cohen, Galler, & Krumrei, 2011), and so this construct appears to be important to gratitude scholars and investigators interested in the psychology of religion. Indeed, Rosmarin et al. (2011) found that gratitude toward God fully mediated the relationship between trait gratitude and religious commitment. Thus, future research that investigates the association between religiosity and gratitude should include assessments of gratitude toward God. Grateful individuals do tend to be grateful toward God as well ($r = .42$ between the GTG and the GQ-6 and the GRAT, Watkins et al., 2011), but trait gratitude is not synonymous with gratitude toward God.

How can we best explain the relationship between spirituality and gratitude? The most obvious explanation is that religiosity causes enhanced gratitude, and this is the approach that most researchers have taken. Some studies appear to support this causal direction. Prospective studies have supported the theory that religiosity or religious behaviors such as prayer enhance future gratitude (Krause, 2009; Lambert, Fincham, Braithwaite, et al., 2009). Although these were longitudinal studies, they were still correlational and hence causal direction cannot be definitively determined. Experimental methodologies would be more informative in this regard. While it is virtually impossible (or unethical) to experimentally manipulate basic religious beliefs, one study used a true experimental design that speaks to the issue of whether religiosity causes enhanced gratitude. Lambert, Fincham, Braithwaite, et al., (2009) did not manipulate religiosity per se, but they did manipulate an important religious practice: prayer. After filtering out those who may have been uncomfortable with regular prayer, participants were randomly assigned to one of four daily "journaling" treatments: prayer for one's romantic partner, general prayer (where the content of the daily prayers were not specified), daily activities (where they wrote about their activities that day), and positive thoughts about one's partner. The treatment period lasted for 4 weeks. The researchers combined the two prayer conditions and the two control conditions for their analyses because of similar outcomes. After controlling for initial levels of gratitude, religiosity, and frequency of prayer, they found that post-treatment gratitude levels of those in the prayer condition significantly exceeded those in the control condition. Because Lambert et al. used the GQ-6, which is designed to tap trait gratitude (and traits should be less susceptible to change), I found this outcome particularly compelling. In this case, prayer was found to enhance dispositional gratitude. Although prayer behavior is certainly not synonymous with religious commitment, this finding supports the theory that religiosity enhances gratitude.

If religiosity enhances gratitude, *how* does it do so? One frequently mentioned mechanism is that monotheistic religions encourage (if not require) gratitude (particularly toward the divine), and this socialization makes religious people more grateful. A somewhat more interesting theory is that in the wake of a positive event in which there is no obvious human benefactor, spiritually minded people may experience more gratitude because they have the option of attributing the benefit to God or some other transcendent source (e.g., McCullough et al., 2002). Thus, believers in a benevolent higher power essentially have more benefits that they can feel grateful for because potentially every positive event could be seen as a favor from God. I would like to offer a third possibility: religion may promote more gratitude because of the experience of divine grace. Many religious people believe that God has redeemed them from an unsavory position and has placed them in an esteemed position in relationship to God, a position that they did not earn or deserve. If so, this may naturally result in a greater disposition for gratitude. Although I do not see this mechanism as mutually exclusive of the first two proposals, it does imply some additional hypotheses. This theory suggests that spiritually minded people who have this experience of divine grace should show more gratitude than those who have not. This highlights the close connection between grace and gratitude. As Karl Barth wrote in what many scholars believe is the greatest theological work of the twentieth century, "Grace and gratitude belong together like heaven and earth. Grace evokes gratitude like the voice an echo. Gratitude follows grace like thunder lightening" (Barth, 1956/1961, p. 41).

The association between spirituality and gratitude could be due to religion enhancing gratitude, but it could also be the result of gratitude enhancing religious belief. Although this is not the approach most researchers take, there is some empirical evidence that suggests this possibility. In a number of studies, Hicks, King and colleagues have presented convincing evidence that positive affect enhances people's ability to garner meaning out of their experiences (Hicks, Cicero, Trent, Burton, & King, 2010; Hicks & King, 2009; King, Hicks, Krull, & Del Gaiso, 2006). Because grateful people experience gratitude frequently, and because gratitude is clearly a positive affect, this implies that grateful individuals are more likely to see meaning in life and thus may be more prone to believe in an intelligent benevolent supreme being. Indeed, one of the prominent characteristics of religious individuals is positive affectivity. To illustrate this possibility, it appears that intense experiences of gratitude were instrumental in the religious conversion of G. K. Chesterton (1908/1986, p. 258):

> Here I am only trying to describe the enormous emotions which cannot be described. And the strongest emotion was that life was as precious as it was puzzling. . . . The test of all happiness is gratitude; and I felt grateful, though I hardly knew to whom. Children are grateful when Santa Claus puts in their stockings gifts of toys or sweets. Could I not be grateful to Santa Claus when he put in my stockings the gift of two miraculous legs? We thank people for birthday presents of cigars and slippers. Can I thank no one for the birthday present of birth?

Thus, it is possible that the experience of gratitude—particularly in the context of a benefit with no obvious human benefactor—creates a situation where one is more likely to believe in a supreme benevolent being such as God.

To my knowledge, only one study seems to speak to the theory that gratitude enhances religiosity. Tong and Yang (2011) found that a gratitude mood induction decreased moral hypocrisy, but neutral and pride inductions did not. This study only speaks very indirectly to this theory, and for me, future investigations into the association between gratitude and spirituality should prove to be important.

5.8 Summary and Conclusions About the Grateful Person

In order to understand the trait of gratitude, we must understand how gratitude is embodied in a person; we must understand what grateful people are like. In this chapter I have attempted to describe the grateful person through relevant research. It is important to know what grateful people are like because this vision should shape our interventions for enhancing the disposition of gratitude. For example, because grateful people are characterized by agreeableness, establishing a more agreeable spirit in people should set the table for building the disposition of gratitude. We also saw that grateful individuals are characterized by positive affectivity. Some research has suggested that there are cognitive and behavioral action tendencies that may inhibit or encourage positive affectivity, and intervening with these mechanisms is likely to enhance trait gratitude as well. Thus, it is important that we have a clear picture of the grateful person.

But most of the research that I have reviewed in this chapter has used correlation designs; we have investigated the traits and characteristics that are associated with trait gratitude measures. While these studies have been informative, they may not provide an adequate picture of the *whole* person who is grateful. Future research therefore, should focus on methodologies that investigate *persons* who are grateful. A good lead to follow might be Diener and Seligman's (2002) study of very happy people. Presumably, one could easily adapt their methodology to study *very grateful people*. Characterizing the complete grateful person seems to call for more qualitative research as well. Here, I think that Krause and colleagues' (2012) study of gratitude toward God in elders is a helpful example. Relatedly, I believe that the study of the narrative identities of grateful people will be particularly helpful to advancing our understanding of the grateful person. Although this tends to be labor-intensive research, McAdams work (2006; McAdams & Pals, 2006) has been very successful, and I believe that if we applied his approach to grateful individuals, this would help complete the picture of the grateful person.

How does one paint a picture of the grateful person? In concluding this chapter, I would like to try to summarize the research I have reviewed to hopefully gain a clearer picture of the grateful person. First, it should be pointed out that external characteristics don't reliably characterize the grateful person. Demographics don't seem to predict gratitude very well. Although women tend to be more grateful

than men, this difference is relatively small. Hence, one cannot paint a picture of the grateful person as a man or woman, as rich or poor, as black or white, or as young or old. Internal characteristics are much more predictive of trait gratitude. The dispositions of gratitude can primarily be characterized as prosocial: grateful people tend to be agreeable and oriented towards others. Dispositionally, grateful people may also be characterized as cheerful: grateful people tend to be higher in positive affectivity. Thus, we may propose that grateful individuals have a more active Behavioral Activation System in Gray's (1987) approach to emotional brain systems. Whether this is primarily the result of biological processes that cannot be modified, or emotional training, research has yet to determine. But there is some evidence that negative affectivity is more heritable than positive affectivity, and conversely that positive affectivity is more the result of emotional training than negative affectivity. In sum, the disposition of grateful people is that they tend to be agreeable and cheerful.

More specifically, we may also look at the characteristic adaptations of gratitude. Again, the prosocial character of grateful people emerges. Grateful people tend to be more empathic and forgiving toward others. Moreover, both self-report and informant results have indicated that grateful people tend to be more altruistic and less selfish toward others. Although to date we really don't know much about the goals and life stories of grateful people, we might surmise that these would also be characterized as prosocial and intrinsic. Furthermore, following McAdams' approach to the generative person, I propose that the life stories of grateful people will be characterized by themes of early blessing and redemptive sequences, both of which may be characterized as themes of grace.

Finally, it is also clear that grateful individuals tend to be more spiritual and religious. While many non-religious individuals can be characterized as grateful, a number of studies have shown that trait gratitude is positively associated with a number of religiosity variables. The nature of this association has yet to be determined, and I would guess that another reciprocal relationship underlies this association; religiosity promotes gratitude but gratitude promotes spirituality as well. Furthermore, I propose a more specific mechanism: one of the primary ways that religiosity enhances gratitude is through experiences of divine grace.

How can we summarize the picture of the grateful person? Is there a word that captures the characteristics of the grateful person? At the risk of oversimplification, I believe that there is a word that helps answer the question, "what are grateful people like?" For me, that word is *grace*; grateful people are full of grace. Because theologians have dealt with this construct more than psychologists, perhaps a theological context will be informative here. According to Berkhof (1941), grace generally means "*favour* or *good will*", and "The fundamental idea is that the blessings are *freely* given, and not in consideration of any claim or merit" (p. 427, italics his). Berkhof goes on to show how grace elicits the response of gratitude. This again reminds us of the history of the word grateful, for its roots in both Latin and Greek are shared with grace (see Chap. 2). To conclude, grateful people are full of grace: they are full of the sense that they have received favor and good will far beyond what they have earned, and they are also full of favor and good will toward

others. As philosopher Comte-Sponville (2002, p. 137) concludes, "Life is not a debt: life is a state of grace, and being is a state of grace; therein lies gratitude's highest lesson."

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Part II
The "How" of Gratitude

In Part II I describe putative mechanisms of the gratitude/well-being relationship. Part I described the descriptive and definitional aspects of gratitude, and the central chapter of this section dealt with the question, "What good is gratitude?" Hopefully, this chapter demonstrated that indeed, gratitude is good; gratitude appears to be an important component of well-being. But this begs another important question, "*How* does gratitude promote well-being?" In order for us to understand the gratitude/well-being relationship, we must understand *how* gratitude promotes well-being. Not only is it important for gratitude researchers to investigate the how of gratitude, it is also important that practitioners who seek to use gratitude interventions understand *how* gratitude promotes well-being. Understanding the mechanisms of how gratitude promotes emotional health is essential for practitioners to optimally use gratitude interventions. In my view, this is where the science of gratitude needs to focus. We need specific investigations into theoretical mechanisms that might help us understand the gratitude/well-being relationship. Only when we understand these mechanisms can we effectively utilize and improve upon gratitude treatments. Because there is little research that has specifically investigated the how of gratitude, Part II is by necessity more theoretical than Part I. Part II is organized into several chapters that propose different mechanisms for how gratitude might promote well-being. Chapter 6 discusses how gratitude might enhance emotional well-being by enhancing one's present experience. In this chapter I ask the question as to whether gratitude enhances one's everyday experience with ongoing events. Secondly, I argue in Chap. 7 that gratitude might encourage mental health by enhancing one's experience of the past. I propose that gratitude augments memories of positive experiences in several ways. Third, I discuss whether gratitude encourages human flourishing by enhancing one's social life. This may be one of the more powerful "hows" of gratitude, and I cover this issue in Chap. 8. Another compelling mechanism is presented in Chap. 9 where I discuss the possibility that gratitude may provide a means for effectively coping with difficult life circumstances. Gratitude may also improve well-being by preventing negative affect, and I discuss this possibility in Chap. 10. I then move on from mechanisms that help us understand the gratitude/well-being relationship, to considerations of how gratitude might develop

(Chap. 11). In considering how gratitude develops in a person, it is also important to understand the factors that might inhibit gratitude, and I discuss these traits and mindsets in Chap. 12. I then conclude Part II with a discussion of how gratitude interventions may be used to increase well-being. In Chap. 13 I present detailed descriptions of the various gratitude interventions that have been shown to be successful, and I discuss how these treatments might be optimally used in various treatment settings. In sum, Part II seeks to answer three important "how" questions regarding gratitude: (1) How does gratitude enhance well-being?, (2) How does gratitude develop in a person?, and (3) How can gratitude interventions be used to the greatest effect?

Chapter 6
Does Gratitude Enhance Experience of the Present?

Gratitude is a second pleasure, one that prolongs the pleasure that precedes and occasions it, like a joyful echo of the joy we feel, a further happiness for the happiness we have been given. Gratitude: the pleasure of receiving, the joy of being joyful.

–Comte-Sponville (2002, p. 132)

True contentment is a thing as active as agriculture. It is the power of getting out of any situation all that there is in it. It is arduous and it is rare.

–G. K. Chesterton

Positive emotional experiences appear to be the most important component of happiness (Diener, Suh, Lucas, & Smith, 1999). If gratitude enhances positive experiences, then this may be one way that gratitude supports emotional well-being. If gratitude amplifies the good in one's present experience, then gratitude should enhance positive affect in response to beneficial events. Philosopher Comte-Sponville puts forth this idea in the epigraph above, and if I may offer a quote by C. S. Lewis again (1958, p. 95), he seems to say something quite similar: "I think we delight to praise what we enjoy because the praise not merely expresses but completes the enjoyment; it is its appointed consummation. It is not out of compliment that lovers keep on telling one another how beautiful they are; the delight is incomplete until it is expressed." Both authors propose that gratitude enhances our experience with benefits that we encounter in everyday life. Lewis even submits that expressing gratitude completes our enjoyment because this is "its appointed consummation." How does gratitude enhance well-being? In this chapter I explore the idea that gratitude increases well-being because it enhances our experience in the present (see Watkins, 2004 and Wood, Froh, & Geraghty, 2010 for similar ideas). I submit that principally gratitude amplifies the good in positive events in two ways. First, I will entertain the idea that gratitude enhances

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well-being by increasing the frequency of pleasant experiences. Second, I will argue that gratitude increases the enjoyment of pleasant events.

6.1 Does Gratitude Increase the Frequency of Pleasant Experiences?

If gratitude amplifies the good in life, it should enhance the frequency of positive affect. There are several ways in which gratitude might increase the frequency of pleasant experiences. First, the affective trait of gratitude may make people more likely to notice positive events. Obviously, one cannot experience a positive event if the event does not enter their awareness. An important aspect of being a grateful person may be that grateful people are more likely to attend to positive information in their environment. In that grateful people tend to be higher in the trait of extraversion (see Chap. 5), and information processing studies have shown that extraverts are more likely to attend to positive information (e.g., Derryberry & Reed, 1994), this appears to be a reasonable hypothesis. As reasonable as this idea might be, I know of no studies that have directly investigated this theory, and information processing approaches to the study of temperament such as those used by Derryberry and others would seem to be called for in the study of gratitude. One issue with this approach is determining whether trait gratitude results in a more positive attention style, or whether habitually attending to positive events is an important facet that is required for the grateful disposition. Whatever the case, I propose that one reason that grateful people experience more positive affect is because they are more apt to notice pleasant events.

How would researchers go about investigating this proposal? First, some clarification of the theory is needed, and a few issues need to be dealt with. For example, theoretically one needs to determine the nature of the information that grateful people might be biased towards. Specifically, would the grateful attention bias be a more general positivity bias, or would attention be allocated to a more specific type of positive information (e.g., information dealing with benefits)? My suspicion here is that grateful people would tend to bias their attention to self-relevant positive information more generally. After positive information is captured by attention, then more specific attributional processes are likely to take place in grateful people. For example, a grateful person may be more prone to notice pleasant weather on a particular day, but this general positivity bias is not likely to differ from that of one high in extraversion. What is likely to distinguish grateful persons is that they should be more likely to attribute the weather to an external benevolent source. Researchers could investigate this issue by using information processing methodologies that have been designed for researching attention biases. For example, the emotional Stroop procedure asks subjects to color name the ink of various words. Studies have found that subjects' color naming speeds are slower with words that contain information

that is more personally relevant for the subject (Williams, Mathews, & MacLeod, 1996).

Another procedure that more definitively determines attention bias is the dot probe attention allocation task (MacLeod, Mathews, & Tata, 1986; Yiend, Mathews, & Cowan, 2005). In this task the subjects' attention is directed to two words that appear on a computer monitor. Following this presentation, the words disappear and a dot probe appears in the location that was vacated by one of the words. The task of the subject is to simply press a button whenever the dot probe appears, and latencies are recorded. The rationale is that if a subject is allocating their attention to one word over another and if the dot probe happens to appear in the location of that word, the subject's reaction time to the dot probe will be shorter than if they were allocating their attention to the competing word. Investigating a positive attention allocation bias would involve comparing response times to positive and negative words in grateful and less grateful individuals. This task has been used so successfully that more recently researchers have used modifications of this procedure to actually train people to pay attention to positive rather than negative information, and this training appears to have salubrious emotional consequences (for a review, see Hertel & Mathews, 2011). If, as I propose, a positive attention bias is important to the affective trait of gratitude, then researchers could use this cognitive training method to enhance the disposition of gratitude. For me, research possibilities in the investigation of attention biases in gratitude are wide open.

Another issue that has risen in this area is whether information initially captures attention, or if a particular piece of information tends to hold one's attention after it enters attentional awareness. For example, some work has suggested that in anxious individuals threat related information tends to hold their attention more (they have difficulty disengaging their attention from fear-related information), rather than the threatening information initially capturing their attention (e.g., Fox, Russo, & Dutton, 2002). In future investigations of attention biases associated with trait gratitude, this is an issue that deserves consideration. Does positive information initially capture the attention of grateful people? Or is it that positive information tends to be more likely to hold the attention of those high in trait gratitude? Of course, it might be that both of these biases are evident in grateful individuals.

This discussion has revolved around trait gratitude and whether it biases attention, but one could also translate these questions to state gratitude. Does *grateful emotion* bias attention toward positive information? Investigating information processing biases that may result from the induction of gratitude appears to be an intriguing research direction. Applying research procedures used in cognitive psychology is likely to bear much fruit when investigating the issue of whether grateful individuals are more likely to notice positive events in their everyday experience.

Grateful people may also experience more frequent pleasant events because they are more likely to appreciate simple pleasures. Recently research has shown that the appreciation of simple pleasures is important to flourishing (e.g., Catalino & Fredrickson, 2011), and for me, the appreciation and enjoyment of mundane everyday pleasures is an important issue for consideration in the study of subjective

well-being. Indeed, happy people do appear to have a lower threshold for the enjoyment of simple pleasures (Tucker, 2007). Do grateful people also have a lower threshold for appreciating simple pleasures? In one study we had happy and unhappy people retrieve both simple and spectacular pleasures from their past in separate recall trials (Doty, Sparrow, Boetcher, & Watkins, 2010). Although both groups tended to recall an equal number of spectacular pleasures, happy individuals recalled significantly more simple pleasures than depressed folks. Moreover, while happy individuals reported more gratitude than unhappy individuals for both simple and spectacular pleasures, there was an interaction such that there was a greater difference in the groups in gratitude for simple pleasures than spectacular pleasures. In other words, happy individuals tend to recall more simples pleasures than do unhappy folks, and when these events do come to mind, they report more gratitude for them. Trait gratitude was also correlated with the tendency to recall more simple pleasures. As with a positive attention bias, we have to be concerned here as to whether being a grateful person promotes the appreciation of simple pleasures or appreciating simple pleasures is a core component of being a grateful person (see Chaps. 2 and 5). Future research could explore this issue, but one reason that grateful people tend to be happier people appears to be that they have a lower threshold for noticing and appreciating simple pleasures. Very simply, if gratitude promotes the enjoyment of simple pleasures, grateful people will have more to enjoy simply because simple pleasures are more frequent than spectacular pleasures.

Thirdly, gratitude might create more pleasant experiences because the act of gratitude is pleasant in and of itself. We have already seen that gratitude is clearly a positive affect (see Chap. 2). Moreover, in a factor analysis study using the adjectives of the PANAS-X along with the three items of the Gratitude Adjectives Scale, we found that "thankful", "grateful", and "appreciative" all loaded strongly on the positive affect scale when we forced a two-factor solution (Brunner, Watkins, & Webber, 2010). Furthermore, in a ten-factor rotation, all three gratitude adjectives loaded strongly on our "Activated Positive Affect" factor. Indeed, three of the top four loading adjectives on this factor were the gratitude items. This and a number of other studies show that gratitude is clearly a positive affect, and thus when one feels grateful, one feels good.

A number of experimental studies that I have referred to in earlier chapters also show that engaging in grateful cognition improves mood. In our early article (Watkins, Woodward, Stone, & Kolts, 2003), in two experimental studies we showed that thinking in a grateful manner improves mood (Studies 3 and 4). In a more recent study we found that dwelling on a grateful memory improves mood (Van Gelder, Beattie, Hosner, Watkins, & Kolts, 2009). Even more compelling evidence comes from the Emmons and McCullough experiments (2003). In three studies they showed that a simple counting blessings exercise improves positive affect over time. In addition, several prospective studies have found that trait gratitude predicts increased positive affect over time (e.g., Spangler, Webber, & Xiong, 2008). Taken together, these studies show that when one is grateful, one is likely to be in a pleasant affective state, and in this way gratitude increases the frequency of positive affective experiences.

Finally, there is evidence that gratitude increases the frequency of pleasant emotional experiences because it focuses one on the blessings that they have rather than the goods that they lack. I will discuss this relationship between gratitude and envy in more depth in Chap. 12, but a number of correlational studies have found that trait gratitude is inversely related to both envy and materialism (Diessner & Lewis, 2007; Froh, Emmons, Card, Bono, & Wilson, 2011; Lambert, Fincham, Stillman, & Dean, 2009; McCullough, Emmons, & Tsang, 2002; Polak & McCullough, 2006; Ruge, Van Gelder, Brown, Gibler, & Watkins, 2007; Thomas & Watkins, 2002). I propose that this is largely because when one is grateful they are dwelling on blessings that are a part of their life, which would seem to direct attention away from things that they do not possess. Experimental studies need to be accomplished here so that we can understand the exact nature of this relationship, but if gratitude does prevent envy this would seem to increase the frequency of pleasant experiences.

Relatedly, I have proposed in past work that gratitude may help one delay gratification (Watkins, 2004). My reasoning was that gratitude involves focusing on the good that one has, and this should decrease the felt need for having more, thus allowing one to delay gratification. Although to my knowledge studies have not directly investigated this idea, the impressive research program of DeSteno (e.g., Bartlett & DeSteno, 2006; DeSteno, Bartlett, Baumann, Williams, & Dickens, 2010) appears to support this notion. If indeed gratitude assists in delaying gratification, this could be another mechanism whereby gratitude promotes well-being because presumably, grateful people would not consistently attempt to buy their happiness. The habitual pattern of attempting to buy one's happiness might paradoxically lead to more unhappiness because this purchasing pattern is likely to put one in financial debt. In sum, gratitude might enhance happiness by increasing the frequency of positive emotional experiences. I propose that gratitude increases the frequency of positive affect through increasing one's awareness of positive events and increasing one's enjoyment of simple pleasures. Furthermore, because gratitude itself is an enjoyable experience, the very act of engaging in grateful thinking will increase the number of positive experiences in one's life. And finally, gratitude might increase the frequency of positive emotion by decreasing envy and allowing one to delay gratification.

6.2 Does Gratitude Enhance the Enjoyment of Pleasant Experiences?

I have proposed that gratitude may enhance well-being by increasing the frequency of positive experiences, but gratitude may also enhance the enjoyment of positive events. Very simply, this theory echoes Chesterton's sentiment (1989/1924, p. 78): "All goods look better when they look like gifts." This section asks the question: Do we enjoy an event more when we encounter it as a gift, and thus experience it with

gratitude? Alternatively, it could be that although perceiving a benefit as a gift rather than as a mere "good" does not enhance its positive hedonic qualities, it still causes the benefit to "look better"—i.e., to cognitively judge it to be more valuable—which then results in enhanced eudemonic well-being or life satisfaction. There are now several pieces of evidence that appear to support this theory.

Before reviewing these studies however, I would like to clarify a few boundary conditions to this general principle. Although generally I theorize that people will enjoy gifts more than mere goods, I predict that there will be a few important exceptions to this rule. For example, individuals who are high in trait indebtedness may actually enjoy goods more than gifts, because the gift makes them feel indebted—a condition that is particularly uncomfortable for them. Similarly, narcissists may prefer a benefit with no benefactor rather than a gift because enjoying benefits from others threatens their high view of their independent self. Furthermore, I submit that those who tend to operate with an exchange rather than a communal relationship orientation (Clark & Mills, 1979) may also prefer goods over gifts (although it may be that the exchange orientation is somewhat redundant with trait indebtedness). In this sense there may be important gender differences in this principle, with women preferring gifts over goods more than men because they are more likely to adopt a communal orientation in their relationships. These are important boundary conditions for researchers to consider, but in general I submit that people will prefer and enjoy gifts more than mere goods because they experience gratitude with gifts.

Do people enjoy an event more when they experience it with gratitude? There are a few studies that offer indirect support for this theory. Although this represents relatively weak support for the hypothesis, I have previously reviewed a number of studies that have shown that state and trait gratitude are moderately to strongly correlated with positive affect and positive affectivity (e.g., McCullough et al., 2002). For example, in our study where we investigated the relationship of state gratitude to a number of aspects of positive affect using the PANAS-X (Brunner et al., 2010), we found that grateful affect was strongly correlated with both "Activated Positive Affect" ($r = .70$) and "Calm Attentiveness" ($r = .53$). State gratitude was less strongly associated with the "Bold" facet of positive affect ($r = .38$). Moreover, trait gratitude was also strongly correlated with both "Activated Positive Affect" ($r = .55$) and "Calm Attentiveness" ($r = .54$). This research shows that when people are experiencing gratitude they are also experiencing other aspects of positive affect, supporting the theory that gratitude enhances positive experiences.

Somewhat more direct evidence comes from vignette studies that have shown that people experience more gratitude when a benefit is intentionally provided by a benefactor rather than simply encountered (e.g., Graham, 1988; Tesser, Gatewood, & Driver, 1968). Because we have seen that gratitude is clearly an enjoyable emotion, one would assume that because more gratitude is experienced, this improved the overall experience with the benefit, but this might not necessarily be the case. Because of the possibility of experiencing indebtedness along with gratitude (e.g., Tesser et al., 1968; Watkins, Scheer, Ovnicek, & Kolts, 2006), it is conceivable that one could experience more gratitude with a gift than a good without necessarily feeling more happiness or satisfaction. This is why research

needs to more directly investigate this idea. Because in laboratory situations it is so difficult to control whether or not a beneficiary attributes a benefit as a gift or a mere good (e.g., grateful people might attribute most goods as gifts), we might be left with vignette methodologies where it is easier to control participants' attributions as to whether the benefit is a good or a gift. As problematic as these methodologies are, I feel that this is still important research to conduct.

Recently we investigated whether gifts are indeed better than goods in two vignette studies (Watkins, Sparrow, Pereira, & Suominen, 2013). In Study 1 we presented our participants with a benefit scenario where the benefactors' motivations for the benefit were ambiguous. Participants then reported how they thought they would respond emotionally to this benefit. Consistent with the theory that gratitude enhances enjoyment, trait gratitude predicted greater happiness and gratitude in response to the benefit, and lower resentment and guilt. In Study 2 we used the same scenario as in Study 1, but we manipulated the intentions of the neighbor for the benefit. In one condition it was clear that the benefactor provided the benefit in order to enhance the well-being of the beneficiary, but in the other condition the benefactor provided the benefit for an extraneous reason. Thus, in one condition the benefit was clearly a gift, but in the other is was a mere good. We found that those in the gift condition reported that they would experience significantly more happiness than those in the goods condition. Indeed, it appeared that gratitude completely mediated this relationship; the reason the gifts condition produced more happiness was because people tended to experience more gratitude with a gift than a mere good. These findings offer more direct support for the theory that when a benefit is experienced with gratitude, one enjoys the event more. Interestingly however, the boundary conditions that I proposed above received mixed support. Although guilt was more strongly correlated with trait indebtedness in the gift than in the goods condition, people high in trait indebtedness still reported that they would enjoy the gift over the good. Thus, although a tendency to experience indebtedness with favors does seem to degrade the enjoyment of a gift, people both high and low in trait indebtedness enjoyed the gift over the good. Experimental studies that actually provide gifts or goods to participants would provide more definitive evidence regarding this question.

Are there unique thought/action tendencies that result from grateful emotion that might enhance the experience of a benefit? In psychology we have thousands of studies that have investigated what people do when things go wrong (contained primarily in the coping literature), but only a handful of studies that have looked at what people do when things go right (e.g., Bryant, 1989; Gable, Reis, Impett, & Asher, 2004). This dearth in the literature is likely because "bad is stronger than good" (researchers and people more generally tend to focus on bad over good events), and the implicit assumption (again made by both researchers and people in general), is that when things go well we just naturally do the right thing, and thus it isn't that important to focus our research attention on responses to positive events. The debate about whether it is more important to study bad or good events and emotions is not likely to produce much fruit, but some research suggests that indeed, when benefits occur, how people respond to these benefits matters (e.g., Gable et al.,

2004). Thus, when a benefit occurs, how one responds to the benefit should impact their well-being, and perhaps there is something about grateful responding that is particularly conducive to enhancing one's experience with positive events.

One such aspect of positive responding appears to be *savoring*, and for me this is an important construct in well-being research. Fred Bryant has produced an impressive research agenda on this issue (e.g., Bryant, 1989, 2001; Bryant & Veroff, 2007), and I am somewhat surprised that his theory of savoring has not received more research attention. In Bryant's conception, savoring is the various thoughts or behaviors people use that impact the intensity and the duration of their enjoyment of a positive event. This is in contrast to coping, which deals with the various methods people use to deal with negative events. Like different coping responses, savoring responses vary as to how effective they are. For example, for most positive experiences sharing with others or becoming absorbed in the experience is likely to heighten and lengthen the positive emotions involved. On the other hand, Bryant has found that there are various "Kill-Joy Thinking" responses that serve to dampen enjoyment (e.g., thinking about how the event could have been better or feeling guilty for enjoying something "when so many others are suffering"). I submit that gratitude, both as an emotion and as a disposition, supports more effective means of savoring.

To my knowledge, there is very little research that has investigated the relationship between gratitude and savoring. We conducted one study where we administered Bryant's Savoring Beliefs Inventory (Bryant & Veroff, 2007), along with two trait gratitude measures (the GRAT-R and the GQ-6), and other measures of emotional well-being (Aragon, Safford, & Watkins, 2008). Three to four weeks later we administered the gratitude and well-being measures again. Zero-order correlations showed moderate to strong relationships between effective savoring and dispositional gratitude. In particular, we found that trait gratitude was most strongly associated with Savoring the Moment and Reminiscing styles of savoring. This supports my idea that gratitude enhances one's experience with the present, which then enhances well-being. But obviously other interpretations of these associations are possible. Indeed, in this study we found that savoring partially mediated the relationship between trait gratitude and satisfaction with life. One important question is whether gratitude promotes effective savoring, or whether savoring is a critical component of being grateful. In this study we found that Time 1 savoring predicted Time 2 gratitude after controlling for Time 1 gratitude. This finding supports the idea that savoring is important to gratitude. It is possible however, that though effective savoring is a fundamental characteristic of dispositional gratitude, gratitude also enhances successful savoring. Unfortunately, we did not administer the Savoring Beliefs Inventory at both time points, so we could not evaluate this possibility.

Many questions about the relationship between gratitude and savoring remain. When one responds to an event with grateful affect, are they more likely to engage in effective savoring? Is gratitude characterized by particular kinds of savoring? Is responding with indebtedness to a benefit an ineffective form of savoring? Bryant has developed the Ways of Savoring Checklist (Bryant & Veroff, 2007), and has

used this measure effectively to investigate individual differences in savoring (e.g., Bryant, Yarnold, & Morgan, 1991). Future work may want to use this measure to further investigate the nature of savoring that is associated with gratitude. To summarize, the limited work that has been done in this area supports the idea that gratitude enhances one's experience in the present through effective savoring.

Gratitude might also enhance one's experience with positive events by counteracting adaptation. Long ago Nico Frijda described the "Law of habituation" as an important law of emotion (1988, 2007). He briefly described this law as: "Continued pleasures wear off, continued hardships lose their poignancy" (p. 353). According to Frijda, this law is based on the principle that emotions are more likely to be the result of perceived changes in one's situation, rather than simply responses to objective circumstances. This law is of course of great advantage when it comes to negative circumstances, and indeed, humans have been shown to be remarkably adaptive when dealing with incredibly difficult events. When it comes to benefits however, when the benefit is experienced consistently we adapt to it, tend to take it for granted, and then fail to notice or appreciate it. Perhaps a personal example will help illustrate this principle. When I was a junior at the University of Oregon in 1978, we used to "brag" that we were the "best 2 and 9 football team in the country" (our record that year was 2 wins and 9 losses). At that time for us, every win was a huge success that we reveled in. Even close losses to national powers like the University of Washington were enjoyed as moral victories. But now that my beloved Ducks consistently appear in important post-season bowl games, it seems that the only thing that will bring satisfaction to Duck fans is a national championship in football. I have grown accustomed to the Duck's success in football, and no longer appreciate or enjoy their victories as I once did. The law of habituation explains well why we don't seem to be any happier now than 70 years ago when we were much less better off materially speaking. We tend to "grow accustomed to our place", and only positive changes in our wealth seem to enhance our subjective well-being. And that boost in well-being is only temporary because we become accustomed to our newfound wealth, leading many to pursue bigger and better houses and cars (the so-called *hedonic treadmill*). Indeed, the principle of adaptation has been identified as an important process that should be the focus of study in well-being research (e.g., Diener et al., 1999). Although the law of habituation is a hard taskmaster when times are good, Frijda claims that "Adaptation to satisfaction can be counteracted by constantly being aware of how fortunate one's condition is" (p. 354). I submit that this is exactly what gratitude does: gratitude makes us aware of benefits that we faithfully receive, and in this way gratitude counteracts adaptation. Grateful people will consistently recognize and take stock of consistent blessings that less grateful people might take for granted.

Does gratitude help counteract adaptation and thus improve one's experience of blessings in the present? This appears to be another question that is ripe for research. I predict that when asked to recall daily positive events, grateful people should be more likely to list benefits that are consistently received than less grateful people. Indeed, the finding of McCullough, Emmons, and Tsang (2004) that the grateful mood of grateful individuals is less dependent on novel events seems to

be consistent with this hypothesis. Furthermore, this theory implies that grateful people should show more appreciation and enjoyment for consistent benefits such as employment or one's spouse than less grateful people. This theory also implies that grateful individuals should have a lower threshold for the appreciation of positive events. Tucker's findings (2007) support the idea that happy people have a lower threshold for the appreciation of benefits than do unhappy people. Although there are a number of alternative interpretations for her findings, it would seem to be the case that gratitude would lower this threshold as well. If future research confirms that gratitude lowers the threshold for the appreciation of everyday benefits, this would be evidence in support of the theory that gratitude counteracts adaptation to positive events. Our findings showing that grateful people recall more simple pleasures than those less grateful seem supportive of this idea (Doty et al., 2010), but clearly more definitive work is needed in this area. The finding that mental subtraction (imagining the absence of a benefit that one currently experiences) enhances gratitude and positive affect (Koo, Algoe, Wilson, & Gilbert, 2008), also appears to speak to this issue. One way that grateful people might counteract adaptation is by imagining what their life would be like without a consistent benefit. For example, when I imagine what my life would be like without the presence of my spouse, this almost always enhances my appreciation and enjoyment of my wife. In this way too, gratitude might counteract adaptation. If gratitude does indeed counteract adaptation, this would be an important mechanism that helps explain how gratitude promotes well-being.

There is some evidence that might be seen as contradictory to the theory that gratitude enhances one's experience in the present. Some research has suggested that grateful affect is somewhat shorter in duration than other positive emotions such as joy (Verduyn, Delvaux, Van Collie, Tuerlinckx, & Van Mechelen, 2009; Verduyn, Van Mechelen, & Tuerlinckx, 2011). Gratitude was used in these studies as an example of a positive interpersonal emotion. It appeared that both positive and negative interpersonal emotions were shorter in duration than other apparently non-interpersonal emotions. My interpretation of the results is that grateful affect seems to be much more stimulus dependent than joy; when the benefactor was no longer present, gratitude was no longer felt. This seems to imply that if given a choice, you're better off experiencing joy than gratitude. But this presents a false dichotomy, because as many studies indicate, when one experiences gratitude they are highly likely to experience joy as well. The issue at hand is whether experiencing gratitude in *addition* to other affects enhances one's emotional experience.

6.3 Summary and Conclusions

This chapter has explored the first "how" of gratitude. How does gratitude enhance well-being? The theory I have proposed here is that gratitude enhances well-being by enhancing one's experience of the present. First, gratitude should increase the frequency of positive experiences. This is because gratitude might make one more

likely to notice benefits. Also, gratitude might lower the threshold for appreciating simple pleasures—those day-to-day mundane benefits we consistently experience that easily go unnoticed. Furthermore, gratitude increases the frequency of positive events because research has shown that thinking and behaving in a grateful manner produces pleasant affect. Also, gratitude focuses one on the blessings that they have rather than the goods that they lack, and this too should increase the frequency of pleasant affect.

Secondly, I proposed that gratitude enhances one's experience of the present by enhancing the enjoyment of pleasant experiences. I submit with Chesterton, that "gifts look better than goods", and if one experiences benefits as gifts this will enhance the enjoyment of benefits, and this in turn will result in increased satisfaction with life. In this context it is important to consider how one responds to positive events, and I have suggested that gratitude may be a particularly adaptive form of savoring pleasant experiences. Gratitude may also enhance our experience of positive events by counteracting adaptation. Although one may easily grow accustomed to consistent benefits, by regularly taking stock of one's good fortune, this should counteract the "Law of habituation."

In sum, I submit that gratitude promotes well-being because it amplifies the good in our experience of the present. Psychologically, gratitude magnifies the good one encounters in one's ongoing experience by increasing the frequency and enhancing the enjoyment of positive events. Although we often do not consider the best ways to respond to the good in life, an emphasis on gratitude suggests that *how* we respond to benefits is indeed important to our well-being. "True contentment is a thing as active as agriculture", observed Chesterton (1912/2004), "It is the power of getting out of any situation all that there is in it. It is arduous and it is rare." Gratitude may be an important way of getting the most out of life.

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Chapter 7
Does Gratitude Enhance Experience of the Past?

A pleasure is full grown only when it is remembered.

–C.S. Lewis (Out of the Silent Planet)

For he lives twice who can at once employ
The present well, and ev'n the past enjoy.

–Alexander Pope

Psychologically, the past can only impact our present well-being through memory. Past events both pleasant and traumatic (if indeed they are truly in the past), can only impact one's emotional well-being through the processes of memory. To be sure, some events leave their physical scars and they may have present consequences, but emotional scars have their effect primarily through the mechanisms of memory. How we remember our past has important consequences for our emotional well-being. Even if one experiences many objective blessings and benefits, if she cannot remember them or if she remembers them in an unfavorable light, they won't have a beneficial effect on her well-being. How we remember our past impacts how we experience the present. How does gratitude support well-being? In this chapter I explore the theory that gratitude enhances well-being by amplifying the good in positive memories. After explaining how positive reflections on the past are important to happiness, I explain how gratitude might enhance positive memories. I argue that gratitude amplifies the good from one's past in two ways. First, I propose that gratitude should enhance the accessibility of pleasant memories. Gratitude should make positive events more available in recollection. Second, I propose that gratitude should enhance the experience of positive memories. Gratitude should increase our enjoyment of memories of positive events.

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7.1 Memory and Happiness

Before discussing how gratitude might enhance positive memory, I first need to establish that positive reflections support and benefit happiness. I propose that positive recollection may have salubrious consequences for subjective well-being in at least five ways. First, and perhaps most obviously, recalling a pleasant memory should positively impact mood. The more an individual can reflect on positive events from their past, the more positive affect they should experience, and as discussed previously, frequent positive affect is one of the main components of subjective well-being.

Second, being able to easily bring positive memories to mind should enhance one's hope and optimism for the future, and well-being research has shown that optimism is one of the most important predictors of happiness. Recently, the work of Schacter and colleagues has shown that how we reflect on our past determines how we construe our future, and these two cognitive processes are probably based on the same neural substrates (for a review, see Schacter, Addis, & Buckner, 2007). Thus, if one reflects on their past in a positive fashion, they are very likely to project their future in the same way. I know of no studies that have specifically evaluated this question in the context of well-being, but the work of Schacter and colleagues suggests that this is a likely possibility.

Third, I propose that when positive memories in a particular domain are easily accessible, this should encourage individuals to engage in activities that enhance happiness. To illustrate, suppose someone invites you to a night of swing dancing. Your decision to engage in this activity is likely to be dependent on what kind of dance memories come easily to mind. If positive recollections of past dances come to mind, you are likely to go ahead and engage in this activity. On the other hand, if no recollections—or worse yet negative experiences with dance—come to mind, you're likely to stay home. This model is essentially the opposite of the vicious cycle proposed by Teasdale (1983) explaining how unpleasant memories maintain depression. On the other hand, if one has a number of easily accessible positive memories in many domains, they should be more likely to approach and participate in those domains, and engagement in life's activities is one of the characteristics of happy people.

Fourth, easily accessible positive memories help people cope with difficult events. This is probably true for two reasons. First, because positive memories can arouse positive affect, this can counteract and "undo" the effects of unpleasant emotions. Indeed, Fredrickson and her collaborators have found that positive emotions "undo" the impact of negative emotions (Fredrickson & Levenson, 1998; Fredrickson, Mancuso, Branigan, & Tugade, 2000). Second, when a negative event takes place but positive events from the past can be easily brought to mind, this could help an individual reframe the event or put the event into perspective. For example, when a student receives a poor test grade, they might be tempted to conclude that they're just a bad student. But if they can easily recall other tests where they have done well, they are likely to see this particular test in perspective, and see it more as an exception to the rule.

When forming one's self-concept, self-relevant memories from the past are likely to be crucial. Thus, another reason that easily accessible positive memories might be important to subjective well-being is by enhancing one's self-esteem. If one can easily recollect many good things from their past, particularly accomplishments and blessings received from others, this should enhance one's self-esteem. Given that self-esteem is an important predictor of happiness (Diener, Suh, Lucas, & Smith, 1999), this might be another way that positive memories enhance well-being.

My final point for how positive memories might impact happiness is admittedly more speculative. If one has built up a capital of positive memories, one should be more likely to build a meaningful and positive life story, and indeed, these are the life stories that tend to characterize happy people (e.g., McAdams, Reynolds, Lewis, Patten, & Bowman, 2001). Thus, positive memories that are easily accessible might support one's narrative identity.

Is there any evidence supporting the idea that positive memories are important to happiness? First, several studies have found that happy people are characterized by a positive memory bias. In studies using a life events recall task where subjects are given an equal amount of time to recall positive and negative events, a positive memory bias has been positively correlated with several different subjective well-being measures (Seidlitz & Diener, 1993; Seidlitz, Wyer, & Deiner, 1997; Watkins, Grimm, Whitney, & Brown, 2005). Of course, this happiness "bias" could just be an artifact of happy people having objectively happier lives: the reason they recall more positive events than unhappy folks is that they've experienced more positive events. While some of this bias appears to be the result of just this, there is also evidence that it is largely a memory bias (Lyobomirsky & Tucker, 1998). Moreover, Lyubomirsky and Tucker (1998) found that this memory bias extended to recollections about others. It appears however, that this bias is mostly due to encoding rather than retrieval processes (Seidlitz & Diener, 1993; Seidlitz et al., 1997), and this will be an important point to come back to when considering how gratitude might promote the development of positive memories. Not only do happy people have more positive events available to them to encode into memory, they are also more likely to encode an event as being a positive event than are less happy individuals (Lyobomirsky & Tucker, 1998), and relatedly they have been found to enjoy pleasant events more, which enhances the encoding of an event in memory (Seidlitz et al.).

Research is fairly clear that happy people do have a positive memory bias, but it is not clear as to whether this is a bias that contributes to, or is a result of their happiness. I think there is good reason to believe that it is a little bit of both: the accessibility of pleasant memories supports happiness, but happiness also contributes to the encoding and recollection of positive memories (see also Liberman, Boehm, Lyubomirsky, & Ross, 2009). If this is true, then there may be a "cycle of virtue" (Watkins, 2004) or an "upward spiral" where happy recollections contribute to more happiness and in turn happiness makes positive reminiscences more likely. This would seem to be an interesting model for well-being investigators to pursue.

Do people use positive memories to improve their moods? The answer appears to be "yes", and this technique is at least somewhat effective (e.g., Josephson, Singer, & Salovey, 1996; Rusting & DeHart, 2000). Research has found that people do use

their positive recollections to "endow" their happy state, and dispositionally happy people do this more than those less happy (Liberman et al., 2009). Indeed, some have shown that recalling positive events from the past is an effective positive mood induction procedure (e.g., Baker & Guttfreund, 1993), and positive autobiographical recall appears to be a more effective mood induction than the commonly used musical mood induction procedure (Jallais & Gilet, 2010). Furthermore, Joorman and Siemer (2004) found that recalling a positive memory after a negative mood induction effectively enhanced mood for non-dysphoric subjects. Interestingly, for dysphoric subjects this mood repair technique was not effective. I believe that this is because positive memories are not easily accessible for dysphoric individuals, and the increased cognitive effort required to recall such events counteracts any emotional benefits of recalling the memory. Indeed, the availability or ease of retrieval heuristic (Tversky & Kahneman, 1973) suggests that if it takes people considerable effort to recall a positive event, they will judge it to be less frequent in their life, and thus will tend to feel less satisfied with life overall. Moreover, recalling positive events has been found to enhance not just mood, but satisfaction with life (e.g., Schwartz & Clore, 1983). There is an important caveat to these results however. Simply recollecting positive events does not always result in increased life satisfaction. Indeed, when people think about events in the distant past they tend to use these events as a standard of comparison, and in these cases one's current status doesn't typically measure up, and hence they tend to report less satisfaction with life (Strack, Schwarz, & Gschneider, 1985). This may be an important issue when considering how gratitude helps establish positive memories, and I will return to this issue later in the chapter.

Another piece of evidence in support of the importance of positive memories to happiness comes from the fading affect literature. It is well known that the emotional intensity of autobiographical memories fades with time, but more recently research has found a so-called *Fading Affect Bias* in emotional memories (e.g., Ritchie, Skowronski, Hartnett, Wells, & Walker, 2009; Walker, Skowronski, & Thompson, 2003; Walker, Vogl, & Thompson, 1997). The *bias* in this effect refers to the fact that while the intensity of emotions fades over time for both positive and negative memories, the intensity fades more with negative memories. Stated differently, over time positive memories keep more of their joy while negative memories lose more of their bite. Thus, when an emotional memory comes to mind, a positive memory is more likely to boost one's mood than will a negative memory make one feel worse. Indeed, Walker, Skowronski, and Thompson (2003) have suggested that this is one way that memory keeps us happy. Moreover, they have found that the *Fading Affect Bias* seems to be disrupted in dysphoric individuals (Walker, Skowronski, Gibbons, et al., 2003). In other words, whereas for most individuals pleasant memories tend to keep more of their joy and unpleasant memories lose most of their unpleasant impact, for individuals who tend to be chronically sad, the emotional intensity associated with negative and positive memories fades at about the same rate. This bias is further evidence that the emotional impact of recalling positive memories supports happiness, but it is also an issue that should prove to be important when considering how gratitude impacts the *Fading Affect Bias*, and I shall discuss this issue later.

Perhaps the strongest evidence supporting the idea that positive memory recollection supports subjective well-being comes from the lab of Fred Bryant (Bryant, Smart, & King, 2005). In Study 1 of this paper, Bryant and his collaborators reported the results of a correlational study showing that the frequency of positive reminiscence was associated with ability to enjoy life. This is a finding that has been demonstrated a number of times (particularly in elderly populations), and although it supports the idea that positive recollection boosts well-being, the correlational nature of the design leaves the question of causation in doubt. More compelling evidence came from Study 2 in which the authors conducted a true experiment with random assignment. Participants were randomly assigned to one of three conditions: a life events control condition, a positive reminiscence condition where subjects were instructed to contemplate pleasant memories using cognitive imagery, and a positive reminiscence condition where subjects were to use memorabilia to assist them in thinking about a pleasant event. In each condition participants were instructed to engage in their particular activity twice each day for 1 week. As predicted, they found that the two positive reminiscence conditions produced greater increases in happiness than the life events control condition. What is notable about this study is that the life events control condition was not a "hassles" condition, which has been used frequently in gratitude research. The complaint against recalling "hassles" as a comparison condition is that this treatment might actually produce decrements in well-being. But in our studies when individuals simply recall life events they mostly recall positive events, so this criticism probably would not threaten the results of this study. Interestingly, both studies supported the idea that positive reminiscence using cognitive imagery was more effective in enhancing well-being than when using memorabilia to assist positive recollection. While this is an interesting finding and it has implications for the most effective use of gratitude interventions, I will not discuss these implications here (see Chap. 13). The main point to be emphasized now is that this study presented compelling evidence that reminiscing on positive events from one's past actually causes enhanced happiness.

To summarize, the frequency and manner in which individuals reflect on their past is likely to be an important component of happiness. The more frequently people reflect on positive events and the more these events positively impact their mood state, the happier people tend to be. The accessibility of positive memories may be important to happiness for several reasons. First, recollecting positive memories usually enhances one's mood state. Secondly, when positive events from one's past easily come to mind, one is more likely to be optimistic about one's future, and optimism has been shown to be an important predictor of happiness. Third, recalling positive memories of various happiness producing activities from one's past is likely to encourage individuals to engage in these activities in the future. Fourth, there is evidence that being able to remember past positive events assists one in dealing with current negative events. And finally, having a number of positive memories accessible in memory probably contributes to constructing a meaningful, positive life story, which also seems to be important to well-being. Happy memories appear to be an important support for happiness, but how might gratitude build one's network of positive memories?

7.2 Does Gratitude Enhance the Accessibility of Positive Memories?

One way that gratitude might boost well-being is by amplifying the good in positive memories. One way that gratitude could amplify the good from our past is by enhancing the accessibility of positive memories. There are several good reasons to suggest this theory. First, as suggested in the previous chapter, because grateful people are more likely to notice and appreciate benefits, they should be more likely to encode positive events into memory. Obviously, unless information is successfully encoded, it cannot be retrieved. It seems to follow that the more positive events one has available in memory, the more accessible positive events should be more generally.

Second, if gratitude is experienced with an event, there is good reason to believe that this will enhance cognitive elaboration of the event at encoding, and this should make the memory more retrievable. As discussed in Chap. 3, gratitude is a cognitively imbued emotion. Whereas with basic joy an individual makes the simple appraisal that something good has happened, when an individual experiences gratitude they have made the additional appraisals of source (external), and intention ("the giver intentionally benefitted me"). The appraisal of the benevolence of the benefactor may involve a number of additional appraisals, such as how the benefit was specifically designed for the beneficiary's needs, and how the favor went beyond their expectations of the benefactor. These additional appraisals are likely to promote more cognitive elaboration, which should make the event more memorable. In cognitive science elaboration refers to the process of associating something in memory to other concepts in memory, or in reactivating old associations with other memories that the individual has made in the past (Graf & Mandler, 1984). When one is thinking about their benefactor and the benevolence of their intentions, this is likely to create more associations in memory and it will likely activate old associations as well. Indeed, many studies in cognitive science have demonstrated that conceptual elaboration of information enhances its memorability (e.g., Graf & Mandler). Thus, by experiencing gratitude with benefits, people will relish the memory, and in so doing elaborate the representation in memory which should make it more available for recollection in the future.

A third reason that gratitude should enhance the accessibility of positive memories is also through enhanced encoding. If gratitude enhances the enjoyment of a benefit (as I argued in the previous chapter), this should also enhance encoding thus making the event more memorable. In their research involving the relationship between emotional memories and happiness, Seidlitz et al. (1997) found that the more emotion was experienced with an event, the more likely it would be recalled later. Furthermore, they found that happy people tended to enjoy positive events more than those less happy, and this apparently assisted in encoding these events that in turn were more likely to be recalled at a later date. Grateful responses to positive events should result in increased relishing of the event. By relishing a

positive event this should enhance encoding by increasing conceptual elaboration and by producing more positive affect experienced with the event.

As suggested by the Seidlitz and Diener studies (Seidlitz & Diener, 1993; Seidlitz et al., 1997), the positive memory bias observed in happy people is probably best explained by encoding processes (see also Liberman et al., 2009). My suspicion is that this is also the case with gratitude: gratitude makes positive memories more accessible primarily because of the advantages it provides this information at encoding. However, there are several retrieval-oriented mechanisms that might also come into play. If grateful people are more likely to elaborate positive information at encoding, it seems reasonable to propose that they also will engage in more elaboration at retrieval. In other words, given a positive retrieval cue (e.g., "Can you remember a time where you felt very grateful?"), I submit that grateful people will be more likely to engage in meaningful elaboration of the cue, which should not only assist in the recollection of a positive event, but it should activate associations to other events as well, thus further establishing a network of positive memories. Additionally, I propose that grateful individuals will spend more time and effort recalling blessings from their past (indeed this might be part of what defines a grateful person), and these recollections should further strengthen the memories of positive events. Research has now confirmed that one of the most effective ways to remember something is to retrieve it. One of the most effective ways of studying material is by so-called *retrieval practice* (for a review, see Roediger & Butler, 2011). By consistently retrieving past blessings this should strengthen those event representations.

How might gratitude enhance the accessibility of positive memories? To summarize, gratitude may increase the accessibility of positive memories by promoting more frequent encoding of positive events into memory, through deeper encoding promoted by increased elaboration and enjoyment of benefits, by strengthening positive memory representations through retrieval practice, and by promoting enhanced elaboration of positive retrieval cues. I have attempted to illustrate this model in Fig. 7.1. Wider arrows in this illustration refer to stronger causal links, and in this way I am attempting to show that biased encoding processes likely explain the positive memory bias in gratitude better than biased retrieval processes. This figure attempts to show how gratitude promotes recall of positive memories, and in turn, how positive memories support subjective well-being.

So much for speculation, is there actually any evidence supporting the theory that gratitude promotes the accessibility of positive memories? Although there is much to be accomplished in this area, one focus of my research has been the investigation of how gratitude might build networks of positive memories. We first investigated this issue by translating the method used by Seidlitz and Diener to trait gratitude (Watkins, Grimm, & Kolts, 2004). In two studies, we showed that trait gratitude was positively correlated with a positive memory bias. Following Seidlitz and Diener (Seidlitz & Diener, 1993; Seidlitz et al., 1997), we had our participants recall positive and negative events from the past 3 years. Students recalled positive and negative events in separate 3-min recall sessions, counterbalanced for order. We administered the GRAT (Watkins, Woodward, Stone, & Kolts, 2003) both

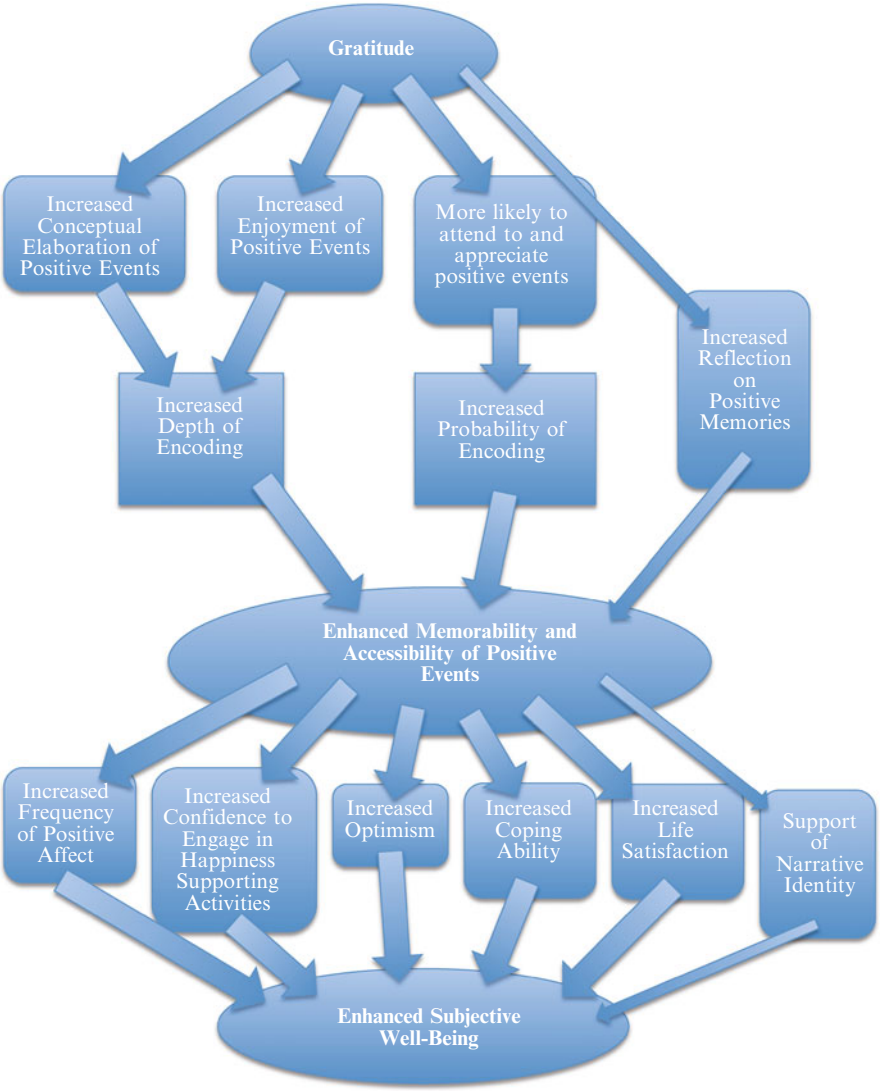

Fig. 7.1 Theoretical model of how gratitude impacts well-being through memory

before and after the recall sessions. To create a positive memory bias score we simply subtracted the number of negative events from the number of positive events recalled. As predicted, trait gratitude predicted positive memory bias in both studies. Thus, grateful people are able to recall more positive memories from their recent past than less grateful individuals. The correlations between gratitude and positive memory bias were moderate (Study 1: $r = .32$; Study 2: $r = .39$). Because these correlations were essentially investigating the relationship between a self-report and

a non-self-report measure, I believe this is fairly strong support for the theory that for grateful people, positive events are more accessible in memory.

As might be expected, in Study 1 the number of positive objective life events endorsed on a life events checklist administered after the recall trials was positively correlated with the number of positive life events listed in our life events recall task, but interestingly (and in contrast to Seidlitz & Diener, 1993), the number of positive subjective events endorsed was not reliably associated with the number of positive events freely recalled. From these results, one might claim that the observed memory bias is not really a "bias", rather, people are grateful because they have had an objectively more positive life and they accurately recall this more positive past. But we found that trait gratitude was *not* reliably associated with the number of positive objective life events endorsed on the life event checklist ($r = .14$, *ns*). Thus, the association between trait gratitude and positive memory bias does not appear to simply be due to the fact that grateful people have had a more positive past. Moreover, in Study 2 we found that gratitude and positive memory bias were still significantly correlated after controlling for depression symptoms. Whatever the case, it is clear from these findings that grateful people have more positive events in memory available for recollection.

One could rightly make the criticism that the life events memory task that we used lacks ecological validity, and may be subject to demand characteristics. After all, for the most part subjects are good at doing what the experimenter tells them to do. If asked to recall positive events, they list them, regardless of how accessible they are in memory. If asked to recall unpleasant events, they write them down, regardless of whether these events might easily come to mind in real life. In consideration of these issues, more recently we have gone to what we believe to be a more ecologically valid life events recall task. Now we simply ask our participants to recall salient life events in a single 5-min recall session within a particular time frame (e.g., events "within the last three months" or "in your lifetime"). After recalling these events, we ask our participants to go back to their written recollections and judge them for valence (positive, negative, both, or neutral). With these more ecologically valid recall measures, we again found that trait gratitude predicts positive memory bias (Harper, Watkins, Johnson, & Pierce, 2009; Safford, Aragon, & Watkins, 2008; Watkins, Van Gelder, & Maleki, 2006). Taken together, we may conclude that trait gratitude is reliably associated with a positive autobiographical memory bias. Again however, caution should be exercised in interpreting these associations because as with most autobiographical memory research, one cannot not control the number of events being encoded. In this regard it is somewhat surprising that apparently no research has attempted to utilize methods used in the mood-congruent memory paradigm (Bower, 1981; see Blaney, 1986 for a review), where study of valenced material is controlled within the experimental session. For example, participants could study positive and negative adjectives, and then be administered a surprise free recall task. The prediction would be that grateful individuals should be more likely to recall positive information than those less grateful. In mood-congruent memory research, in general researchers only find mood-congruent or personality-congruent effects when information is encoded

in a self-referent fashion (Blaney, 1986). For example, dysphoric subjects only show a negativistic recall bias in these paradigms when adjectives are encoded with regard to the self, but not a significant other (like one's mother). However, with gratitude one might expect to find a positive memory bias when information is encoded with regard to others as well. Translating these basic cognitive science methods to investigate information processing biases in gratitude should prove to be fruitful, and gratitude and well-being researchers would be prudent to follow the lead of experimental psychopathology and social cognition researchers in this regard.

Moreover, we have also found that trait gratitude is associated with a positive *intrusive* memory bias (Watkins et al., 2004; see also Watkins, Cruz, Holben, & Kolts, 2008). In both of our studies from Watkins, Grimm, & Kolts (2004), we included an intrusive memory measure. As participants were intentionally listing memories of a particular valence (positive or negative), we asked them to check a box at the bottom of the page if a memory of the opposite valence happened to come to mind. For example, if while attempting to recall positive events a memory of a bad test grade or a relationship break up came to mind, the participant was to check a box at the bottom of the page. We did not want participants to actually write a description of these intrusions, because we felt that by doing so this would distract them from recalling the type of memories that they were instructed to recall, and writing descriptions of intrusions would provide for cognitive elaboration which would be likely to activate more intrusions. Thus, we defined an intrusion as any memory that came to mind which was opposite in valence of the type of memory that they were instructed to recall. As with intentional memory, we found that trait gratitude predicted a positive intrusive memory bias. Indeed, we found that during the period where subjects were to recall negative events from their past, grateful people recalled an average of about eight unpleasant events, but over five positive memories "intruded" into this recall session. When comparing grateful to less grateful subjects (determined by a median split), grateful participants showed a distinct positive bias, whereas less grateful participants were much more evenhanded in their recall of emotional events.

Thus far we have seen that positive memories come to mind more readily for grateful people in both intentional and intrusive memory. In both of these results however, our participants were purposefully directed toward emotional memories. What about naturally occurring memories that come to mind when people are not attempting to think about their emotional past? An interesting and important paradigm has risen in autobiographical memory research called involuntary memory that seeks to investigate autobiographical memories that spontaneously come to mind in the absence of any explicit instructions to reflect on one's past (Berntsen, 2010; Berntsen & Rubin, 2002). In one study we had exposed participants to several different modes of valenced stimuli (pictures, odors, and music), and we simply asked them to think aloud while they were experiencing these stimuli (Watkins et al., 2005). The research assistant wrote down any verbalization that they felt was referring to an autobiographical memory, and after the exposure to stimuli they interviewed the subject to confirm whether or not these were indeed memories from their personal past. Consistent with intentional and intrusive autobiographical memories,

we found that trait gratitude predicted a positive involuntary memory bias. In other words, positive memories involuntarily came to mind more frequently for grateful than for less grateful individuals. Moreover, this relationship held after controlling for symptoms of depression. To summarize the evidence to this point, trait gratitude has been found to reliably predict positive memory bias in intentional, intrusive, and involuntary autobiographical memory research methodologies, providing strong support for the theory that gratitude promotes the accessibility of positive memories.

Thus far I have simply dealt with positive memory biases associated with gratitude. But a case could be made that memory biases that are associated with trait gratitude might be more specific. I have argued previously that redemptive sequences in life narratives—bad events that turn out for the good—might be particularly characteristic of grateful people (see Chap. 5). We investigated this possibility by having subjects recall positive, negative, and redemptive events, and comparing their responses to their trait gratitude scores (Contreras & Watkins, 2005). Indeed, we found that trait and state gratitude were strongly related to a redemptive memory bias ($r = .44$ and $r = .52$, respectively), although this strong association was also found in the more general positive memory bias, as in past studies. Proportion of redemptive memories recalled remained significantly correlated with gratitude after controlling for life satisfaction. Because only 32 subjects were involved in this study, caution should be exercised when making interpretations. In addition, we simply asked participants to recall these three distinct memories, and it would be interesting to investigate the occurrence of redemptive memories in a more naturalistic memory paradigm. For example, researchers could use our more neutral recall paradigm explained above ("recall significant events from your life"), and then have them judge each recalled event for its redemptive status. Because redemptive events are likely to be less frequent than positive events more generally (and this is indeed what we found in our study), I would recommend using a whole life time frame, rather than limiting recall to more recent events. Even then, redemptive events may be rarely recalled, and this could produce problems with floor effects. One might even pursue using Singer's self-defining memory paradigm (Singer, Rexhaj, & Baddeley, 2007; Singer & Salovey, 1993). One might expect to find more redemptive sequences in self-defining memories than in emotional memories more generally. In Singer's approach, redemptive sequences in self-defining memories should have more momentous consequences to well-being. As emphasized in Chap. 5, investigations into the narrative identity of grateful people should prove to be very interesting.

The cross-sectional and correlational nature of the studies discussed to this point leave these results open to many interpretations. Cross-sectional studies do little (if anything) to determine the direction of causation. Thus, we have conducted a few prospective studies that provide somewhat more convincing support to the notion that gratitude *causes* the increased accessibility of positive memories. In Safford et al. (2008), 74 participants completed our unstructured life events recall measure ("recall significant life events") along with gratitude measures (the GRAT-S and the GQ-6) in two sessions approximately 1 month apart. In two recall trials, participants retrieved significant events from two time frames: the previous 3 weeks and from

the rest of their life. Zero-order correlations between Time 1 trait gratitude measures and Time 2 positive memory bias were moderate and significant for both time frames (correlations ranged between .36 and .46). We also conducted partial correlations by controlling for Time 1 positive memory bias. This analysis is a relatively strong test as to whether gratitude promotes increased memory bias. After controlling for Time 1 memory bias, both Time 1 gratitude measures still reliably predicted Time 2 lifetime positive memory bias (GRAT-S: $r = .40$; GQ-6: $r = .32$). In our analysis of memory bias from events within the previous 3 weeks however, only Time 1 GQ-6 scores significantly predicted Time 2 memory bias after controlling for Time 1 recent memory bias ($r = .28$). Although our results were somewhat mixed, generally speaking we can conclude that trait gratitude predicts increased positive memory bias for both recent and more remote events.

Somewhat stronger evidence for the idea that gratitude promotes the accessibility of positive memories comes from our prospective study that we presented in 2006 (Watkins et al., 2006). As with the study described above, we administered the unstructured life events recall measure along with gratitude measures and other measures of well-being approximately 1 month apart. In this study however, more subjects participated ($n = 95$). Again we administered two life events recall trials, for two different time frames (previous 4 weeks, and from the rest of their life). Again, the strongest relationships were found with lifetime positive memories, and I will describe these relationships below. As with the study described above, we found that Time 1 trait gratitude was significantly correlated with the number of positive memories retrieved at Time 2, after controlling for Time 1 positive memory recollection ($r = .22$). Perhaps more importantly, we found that gratitude predicted positive memory recollection 1 month later after controlling for a number of Time 1 well-being variables. Time 1 Gratitude significantly predicted number of positive memories retrieved at Time 2 after controlling for Time 1 depression ($r = .32$), happiness as measured by the Fordyce Happiness Scale ($r = .29$), and satisfaction with life ($r = .27$). Thus, trait gratitude appears to predict positive event recollection prospectively 1 month later independently of emotional well-being at Time 1. Taken together, these two studies suggest that gratitude prospectively predicts increased accessibility of positive memories, supporting the theory that gratitude enhances well-being by increasing the accessibility of pleasant memories.

Surely the reader has taken note however, that all of the studies discussed thus far in this context are correlational. Even though the prospective studies provide somewhat stronger evidence than the cross-sectional data, experimental studies are still needed to provide definitive evidence that grateful processing actually *causes* increases in the accessibility of positive memories. To date, we have conducted two experimental studies that provide some support for this mechanism. In our first study we randomly assigned our participants to one of two memory recall treatments (Watkins, Neal, & Thomas, 2004). In the control condition, participants recalled three events that impacted them emotionally. In the grateful recall condition participants were asked to recall three events that they felt grateful for. In both treatments participants recalled these events three times per week for 4 weeks. Outcome measures were administered at pre and post-treatment, and included

several well-being measures and our unstructured life events recall measure. In this task subjects recalled salient events from the previous month in a 5-min recall trial. Although we found that the positive memory bias of the grateful participants increased more from pre to post-test than the bias of our control participants, this effect was largely due to *decreased recollection of negative memories* over the course of treatment by grateful recall subjects. Both of our treatment groups showed significant but similar increases in the accessibility of positive memories over the treatment period. A subsequent no treatment trial suggested that this increase was not due to practice effects, and we believe that the control group increased its positive memory recollection right along with the grateful recall treatment because they were largely recalling positive memories in their treatment. When we went back and coded the type of memories that those in the emotional recall condition were recalling during the treatment period, about 60–70 % of the recollections were positive, and many of these could be considered to be grateful recollections. Thus, we did not appear to have a very good control condition. The fact that the accessibility of negative memories for the previous month decreased for our grateful recall participants while recall of negative memories in our controls remained stable is somewhat interesting. It could be that consistently recalling grateful events produces a kind of *retrieval inhibition* effect for negative memories, and this would be an interesting possibility for future work to pursue. Results from our emotionality outcome measures were more consistent with our expectations however. Whereas positive affect showed significant increases over the treatment period in our grateful recall participants, positive affect decreased in our controls. A complimentary result emerged with negative affect. Whereas negative affect decreased over the treatment period for our grateful recall participants, negative affect increased slightly in our controls. Moreover, we found that as positive memory bias increased over the treatment period, positive affect increased as well ($r = .26$). As positive memory bias increased, we found that negative affect decreased ($r = -.44$). These results provide somewhat tentative support for the theory that grateful processing enhances well-being by increasing the accessibility of positive memories.

There were several issues with this experiment that we tried to rectify in a more recent study that we have just completed (Watkins et al., 2012). In this study we used an adaptation of Seligman and colleagues' "three blessings" positive psychology intervention that has shown promising long-term impact on well-being (Seligman, Steen, Park, & Peterson, 2005). The "three blessings" intervention asks subjects to recall three things "that went well" in the previous 48 h, and asks participants to write about why these events went well. Participants complete these recall trials every night for 1 week. In our study, participants were randomly assigned to one of three treatment conditions, and following Seligman et al., the treatments consisted of daily recall sessions every night for 7 days. In each treatment condition participants were told that the intervention in which they were engaged had been shown by research to boost happiness (so as to account for placebo effects). In the memory placebo control condition, participants were given a different personal semantic memory task each day to complete. For example, on 1 day they were to "recall your typical route through your favorite grocery store." Participants were also randomly

assigned to one of two "three blessings" treatments. One of the issues with gratitude listing treatments such as the counting blessings intervention (e.g., Emmons & McCullough, 2003) is that it could be argued that there is nothing unique to gratitude about counting blessings because it could be that the active treatment mechanism is simply the activation of positive memories, not the recall of grateful memories per se. Although even this mechanism would be important to gratitude research (grateful people should regularly reflect on positive memories, thereby showing benefits of gratitude), we wanted to determine if there was anything particularly important about *gratefully processing* positive memories. Thus, we included a three blessings treatment that was specific to grateful processing, and one that was not. As in Seligman et al. (2005), in both of these active treatments, participants were to recall and list three things that went well in the previous 48 h. After listing these blessings however, we manipulated how our participants were to write about these events. In order to insure that one condition did not include grateful processing of the blessings, we attempted to activate thoughts and feelings of pride associated with the events that went well. Thus, in the *Pride Three Blessings Treatment* subjects were to "to write about how this particular experience or event made you feel that you are better than most or better than average (i.e. How does it make you feel like you stand out or have qualities that others don't have?)." In our active treatment, the *Gratitude Three Blessings Treatment*, for each blessing recalled participants were asked to "write about how this particular experience or event made you feel grateful."

Our outcome measures were administered at pre and post-treatment, 1-week post-treatment, and 5-weeks post-treatment. Our primary outcome measure was a composite well-being measure that consisted of positive and negative affect for the past week and life satisfaction. First, as expected, we found that overall the gratitude treatment significantly outperformed the other treatments in terms of well-being (see Fig. 7.2 for an illustration of these results). Two aspects of our well-being findings should be highlighted. First, note that in all three treatments well-being is increasing, so the fact that the Gratitude Three Blessings treatment outperformed our two comparison conditions is a particularly strong finding, in our view. Second, note that the largest treatment differences appeared to be at the 5-week post-treatment follow-up (although this interaction did not reach significance). This is an encouraging finding with respect to long-term benefits from positive psychology interventions such as these, and is consistent with the findings of Seligman et al. (2005).

More important for our discussion are the memory accessibility results that are illustrated in Fig. 7.3. As in our previous study, we used our unstructured life events recall measure and asked our subjects to recall significant or salient life events for two time frames: the past week and the past month excluding the past week. As before, after the recall trials subjects went back to their written recollections and rated them for valence and other variables. Different from previous studies however, in this study we demarcated each minute of recall. This was because we felt that the memories that were recalled during the first minute would be most indicative of the accessibility of positive memories. As expected, no significant treatment effects

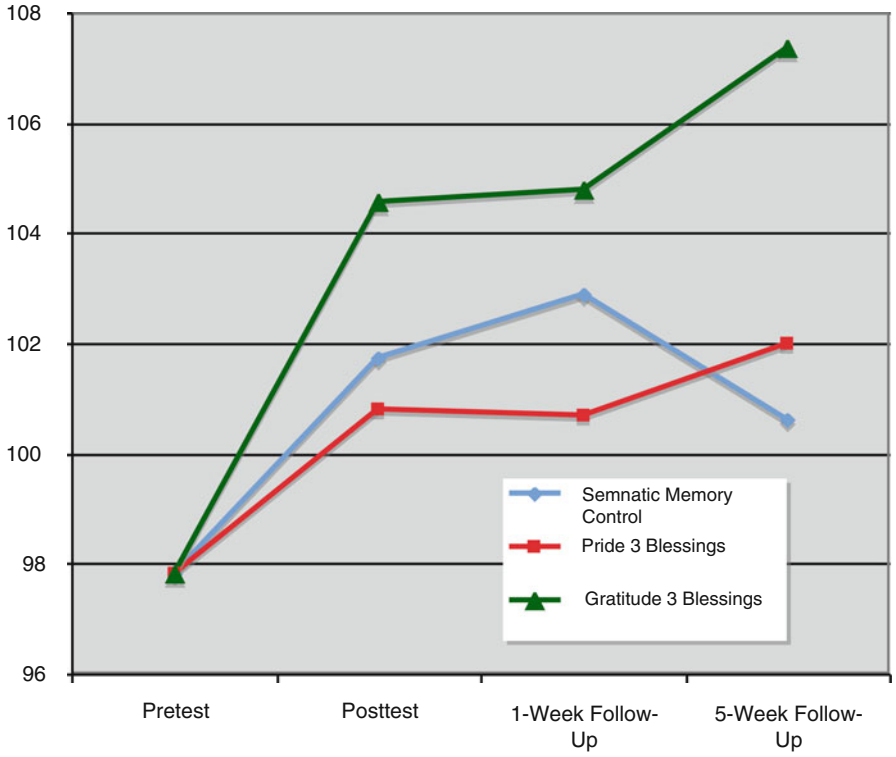

Fig. 7.2 Impact of gratitude three blessings treatment on well-being

were found with the accessibility of negative memories (perhaps due to a floor effect), but the gratitude treatment did produce significantly more positive memories during the first minute of recall than the other treatments. Note from Fig. 7.3 that this advantage was particularly evident at post-treatment. This probably supports the idea—as emphasized above—that the primary reason that gratitude promotes positive recall is because it benefits the encoding of positive events. Also, I should note that we did not find any significant memory effects for memories from the past month, only memories from the past week. Again, this seems to support more of an encoding benefit hypothesis, rather than a retrieval bias interpretation. In a nutshell, in this study we found that grateful processing of blessings showed a significant impact on subjective well-being, and at least in part, this appears to be due to increasing the accessibility of positive memories.

Let me now make a few comments about this study that I feel give us direction as to where future research might proceed. First, the effect sizes in this study were not large, and this may have been due to the use of a student convenience sample that was not necessarily all that interested in enhancing their happiness. Second,

Fig. 7.3 Impact of gratitude three blessings treatment on accessibility of positive memories

note that our memory measure was a rather non-specific assessment of memory bias. We simply asked for salient events from a particular time frame. Although our findings are predicted from the theory I have illustrated in Fig. 7.1, this theory actually makes more specific predictions than the hypotheses we tested in this study. The reason that grateful processing of positive memories should produce increased accessibility of positive memories more generally, is that grateful processing of specific positive memories should be most likely to show memorial advantages for those specific positive memories that were processed in a grateful manner. Thus, future research could test this theory more directly by evaluating the impact of grateful processing on specific positive memories, something we did not do in this study. Again I would recommend that gratitude researchers utilize information processing and autobiographical memory procedures that have been successfully used in cognitive, personality, and social psychology.

Does gratitude enhance the accessibility of positive memories? Grateful people tend to recall more positive memories from their past, and gratitude prospectively predicts enhanced positive memory bias. Moreover, a few experimental studies have provided evidence that grateful processing enhances the accessibility of positive memories. The experimental evidence is not strong however, and much more specific experimental research in this area seems to be called for.

7.3 Does Gratitude Enhance the Enjoyment of Positive Memories?

I propose that gratitude enhances one's experience of the past not simply through increasing the accessibility of positive memories, but through enhancing the enjoyment of positive memories as well. As Martial observed long ago, "To be able to enjoy one's past life is to live twice." Recalling positive memories is all well and good, but if one does not garner any affective benefit from their recollections, this recall pattern is not likely to enhance well-being. Why should gratitude enhance one's enjoyment of positive events from the past? My general theory on this issue is that gratitude amplifies the good in positive memories. Gratefully encoding or gratefully recalling a memory should amplify the value of the event, it should amplify the good benefactors involved in the event, and it should enhance the meaningfulness and importance of the event in the bigger picture of one's life. If gratitude amplifies the good in these aspects of events from our past, it seems to follow that we would also enjoy these recollections more; more positive affect should be experienced when recalling these events. Is there any evidence that supports this theory?

The first piece of evidence supporting the theory that gratitude enhances the enjoyment of positive memories comes from Study 2 of our gratitude and memory paper (Watkins, Grimm, & Kolts, 2004). In these studies we had participants recall positive and negative memories from their life in separate recall trials. In Study 2, we had our participants go back to their written recollections and rate each memory for "positive emotional impact." Participants made two emotional impact ratings: "then" ratings for the impact each event had on them when it originally occurred, and "now" ratings for how recalling the event impacted them now. Essentially we found that compared to their less grateful counterparts, grateful subjects had an enhanced *Fading Affect Bias*. In other words, for our grateful participants positive memories held more of their joy and negative memories lost more of their bite, when compared to less grateful subjects. Although the groups did not differ on "then" emotional impact ratings, grateful participants felt more positive about both positive and negative memories than our less grateful subjects. Thus, not only did grateful participants recall more positive memories, they felt better about them as well. We have been able to replicate this finding using our unstructured life events recall task (Watkins et al., 2006), and furthermore, we have found some experimental evidence that grateful recall actually promotes the Fading Affect Bias. In our experiment where we randomly assigned participants to either life events or grateful recall treatments (Watkins et al., 2004), we found a significant treatment by time by fading affect interaction for negative memories. This interaction resulted from the fact that for our control participants the fading affect for their negative memories decreased over the treatment period, but the fading affect for the negative memories of our grateful recall treatment participants increased. Thus, for the few unpleasant memories that our grateful recall treatment participants recalled, the current unpleasant emotional impact decreased over the treatment period.

The prediction that gratitude should promote the enjoyment of positive memories is derived from my theory that gratitude amplifies the good in positive memories. We have at least some quasi-experimental data supporting this theory (Pichinevenskiy et al., 2012). In this study, we first had participants recall a positive memory that had taken place during the previous 3 months. Participants then rated the memory on a number of subjective variables, including how grateful the memory made them feel. We divided the participants based on a median split into two groups: positive memories high in gratitude and positive memories low in gratitude. Participants then recalled this memory 1 week and 2 months after the initial recall study session, and again rated the memory on a number of variables. In brief, we found that grateful memories showed more amplification than less grateful memories. Across time, grateful memories showed more psychological amplification in terms of global importance, personal meaning, and life implications, after controlling for current positive emotional impact. Furthermore, grateful memories showed less closure across time. After controlling for emotional intensity, grateful memories showed less fading affect (i.e., they lost less of their positive emotional impact across time), and were more vivid. Thus we have some preliminary support for the theory that gratitude amplifies the good in positive memories. Experimental work would provide more conclusive evidence for this theory, and the challenge here is to provide a clear manipulation of gratitude in positive memories. In our first study, we were unsuccessful in our attempt to manipulate the gratitude in positive memories, and this appeared to be due to the fact that positive autobiographical memories from the past have a somewhat fixed level of gratitude associated with them that cannot be easily manipulated.

Before ending my discussion of gratitude and the enjoyment of positive memories, it is important to point out that recalling positive memories does not invariably result in improved mood. As described earlier, when an individual recalls a pleasant event from their distant past, this is often used as a standard for comparison rather than an indicator of how good their life is in the present. Consequently, recalling remote pleasant events often results in a decrease of life satisfaction (Strack et al., 1985). As I write in now in late February looking at the snow outside of my window, I may be less inclined to report favorable life satisfaction when comparing my current status with my enjoyment of a vacation in Hawaii 3 weeks ago. On the other hand, if I view my vacation in Hawaii as still contributing to my current well-being, I will probably give my life satisfaction a more rosy outlook while reflecting on these pleasant effects. The issue of whether grateful reflections from the past tend to function more as standards of comparison or as events that enhance our current well-being deserves to be pursued in future research. Compared to non-grateful positive memories, I submit that grateful memories from one's remote past are less likely to be used as standards of comparison for one's present status, and are more likely to be viewed as events that still contribute to one's well-being today. If this is true, recollection of grateful memories from one's distant past may have greater emotional advantages than remote positive memories that are not particularly grateful. In my view, there are many valuable research possibilities in investigating the advantages of recollecting positive memories.

7.4 Does Gratitude Make Blessings Easier to Recount, or Does Recounting Blessings Make People More Grateful?

Up to this point in the chapter I have argued that gratitude promotes the recollection and enjoyment of pleasant events from one's past. But could it be argued that the reason that people are grateful is because they can easily recollect positive events? If pleasant events easily come to mind, this would seem to support one's *sense of abundance*, one of the "three pillars of the grateful person" (see Chap. 5). If, when reflecting on my past, predominantly good and pleasant events come to mind, I should be much more likely to feel that life has been good to me, that life has provided me with an abundance of blessings. Indeed, we found some prospective evidence for this in Pichinevenskiy et al. (2012), and in our gratitude and memory article (Watkins, Grimm, & Kolts, 2004), we found that people's trait gratitude scores were significantly higher if they recalled negative memories first, followed then by recalling positive events. Thus, there is good reason to suspect that just as recollecting positive memories promotes subjective well-being (see Fig. 7.1), it enhances gratitude as well. So, "Does gratitude make blessings easier to recount, or does recounting blessings make people more grateful?" My answer to this conundrum is "yes." Gratitude promotes the accessibility and enjoyment of positive memories, but when positive events from the past easily come to mind, this promotes both state and trait gratitude. I propose that gratitude and positive recollections are related to each other in a reciprocal manner, thus creating a "*cycle of virtue*" or "*upward spiral*." This relationship is illustrated in Fig. 7.4. First, gratitude (both as state and trait) should promote the encoding of positive events through the mechanisms summarized in Fig. 7.1. The benefits that gratitude provides for the

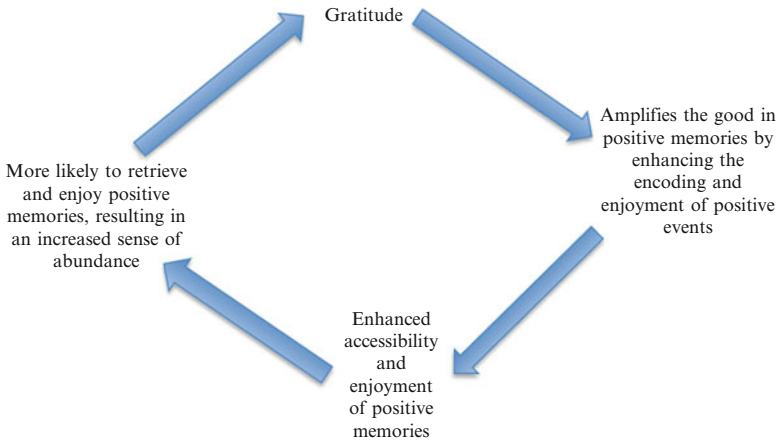

Fig. 7.4 Theoretical model of the reciprocal relationship between gratitude and positive memories

encoding of positive events promote their accessibility and enjoyment when they come to mind. When pleasant events easily come to mind and provide a positive emotional impact on an individual, they should be much more likely to feel that life has afforded them an abundance of blessings. When people have an enhanced sense of abundance, this promotes gratitude, and the cycle is complete. Gratitude and positive memories may operate in an upward spiral that promotes well-being.

7.5 Summary and Conclusions

Although much more work could be done here, research supports the theory that the recollection of positive events is important to one's happiness. Regardless of how good one's life has been, if one does not remember their past as good, they are unlikely to feel very satisfied with life. In this chapter I have also presented theory and data supporting the idea that gratitude promotes a positive memory bias: positive memories easily come to mind for grateful people, and when they do, these memories have a more positive emotional impact on grateful as compared to less grateful people. Taken together, this may be seen as one of the important "hows" of gratitude: gratitude may promote well-being by enhancing the accessibility and enjoyment of positive events from our past. Being able to easily recollect positive memories may also enhance gratitude however. Thus, gratitude and the recollection of positive memories may operate in a "cycle of virtue." Just as gratitude may amplify the good in one's present experience, gratitude may serve to amplify the good in one's past. Reflecting favorably on one's past appears to be an important aspect of well-being, supporting Sarah Teasdale's evaluation of positive reflections (from *The Coin*):

> Oh better the minting
> Of a gold-crowned king
>
> Is the safe-kept memory
> Of a lovely thing.

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Chapter 8
Does Gratitude Enhance Social Well-Being?

> *In our age man has been broken up into self-contained individuals . . . isolating himself from people and people from him. And, while he accumulates material wealth in isolation, he thinks with satisfaction how mighty and secure he has become . . . . The reason for this is that he has become accustomed to relying on himself; he has split off from the whole and become an isolated unit; he has trained his soul not to rely on human help, not to believe in men and mankind, and only to worry that the wealth and privileges he has accumulated may get lost. Everywhere men today are turning scornfully away from the truth that the security of the individual cannot be achieved by his isolated efforts but only by mankind as a whole.*
>
> –F. Dostoevsky

In the passage above from *The Brothers Karamozov*, Dostoevsky's commentary on his Russian society seems to be prescient for Western culture. But perhaps it is not so prophetic, because we have always been social animals, and though we may attempt to isolate ourselves into some kind of imagined independence, our connectedness with others is still crucial to our well-being. One of the most influential studies to emerge in the fledgling positive psychology movement demonstrated the importance of one's relationships to happiness. Diener and Seligman (2002) used a number of self-report and non-self-report instruments to determine three distinct groups of students. Unhappy students scored in the bottom 10 % of the composite of happiness measures, the "average" group comprised the middle 27 % of students, and the "very happy" students were in the top 10 %. Diener and Seligman compared these subjects on a number of different variables, but one aspect stood out in terms of distinguishing the groups. In a nutshell, the very happy people were much more socially engaged than the other two groups. Although social engagement was not *sufficient* for happiness (there were unhappy people who were very socially active), it did appear to be *necessary* for emotional well-being (all of the very happy subjects were socially engaged). Diener and Seligman (p. 83) concluded, "Our findings

P.C. Watkins, *Gratitude and the Good Life: Toward a Psychology of Appreciation*, DOI 10.1007/978-94-007-7253-3_8,

suggest that very happy people have rich and satisfying social relationships." Further illustrating the importance of social support to well-being, survey work has shown that answers to the simple question, "Looking back over the last 6 months, who are the people with whom you discussed matters important to you?" are robust predictors of happiness (e.g., Burt, 1986). The more people listed in response to this query, the happier people were. Like Diener and Seligman, Burt concluded that social support and social networks are important to happiness. These studies are not alone in their conclusions; indeed quality relationships and social support appear to be one of the most consistent and striking characteristics of happiness (Diener, Suh, Lucas, & Smith, 1999; Myers & Diener, 1995). It is not too much of a stretch to say that happy people are social people.

How does gratitude enhance well-being? Social well-being appears to be important to happiness. In this chapter I propose that gratitude enhances well-being by promoting one's social life. To anticipate, there are now a number of studies that have shown how gratitude enhances relationships. I begin by examining McCullough, Kilpatrick, Emmons, and Larson (2001) moral affect theory and explain how this theory helps us understand the social nature of gratitude. The remainder of the chapter is devoted to exploring *how* gratitude promotes social well-being. First, several studies have shown that grateful people are well liked. Why do people like grateful people? I show how gratitude helps establish and maintain relationships. Moreover, recent work has shown that gratitude promotes prosocial behavior. I will conclude the chapter by showing how gratitude amplifies the good in others, as well as in one's self.

8.1 Seeing Gratitude as a Moral Emotion

Perhaps the article that most provoked the recent renaissance of gratitude research was the review published by McCullough and colleagues in 2001. In this comprehensive review, McCullough et al. organized extant gratitude research and provided clear direction for future work with their moral affect theory of gratitude. The authors argued that gratitude should be seen as a moral affect, much like other moral emotions such as guilt, shame, empathy and sympathy. McCullough and collaborators argued that gratitude was a moral emotion because it is often the consequence of moral actions (one feels grateful when another is good to them), and it often motivates moral behavior (when one feels grateful they are more likely to act on a moral way toward others). Although McCullough later questioned whether "prosocial affect" might be a better characterization of gratitude (McCullough & Tsang, 2004), the moral affect theory of gratitude is still influential.

McCullough et al. argued that gratitude was a moral emotion in three ways: as a moral barometer, as a moral motivator, and as a moral reinforcer. First, as a *moral barometer*, gratitude is an effective barometer of the moral weather surrounding one. In other words, when one experiences gratitude it informs them that others have been good to them. Just as when the weather changes the barometer rises or falls,

so too when one experiences a change in benevolence, she will likely experience a rise in gratitude. Secondly, gratitude serves as a *moral motivator*. McCullough and collaborators argued that when one experiences grateful affect it motivates moral behavior toward others. Stated differently, the primary action tendency of gratitude is prosocial behavior. Third, gratitude serves as a *moral reinforcer*. When one expresses gratitude in response to a favor, this encourages the benefactor to act in a similar way in the future. Expressed gratitude encourages future moral behavior, particularly acts of benevolence toward the one expressing his or her gratitude. As will be seen in the ensuing paragraphs, there is now considerable support for the moral affect theory of gratitude, and this approach continues to kindle interesting and useful gratitude research. This theory is consistent with the gratitude amplification theory that I have made use of in this book. Gratitude amplifies the good in one's life, and specifically it amplifies the good in one's social life. I submit that gratitude amplifies one's awareness of the good that others do to them, and it also amplifies one's motivation to do good to others.

8.2 How Gratitude Promotes Social Well-Being

8.2.1 People Like Grateful People

Does gratitude promote social well-being? The first piece of evidence that strongly suggests that gratitude promotes one's social welfare is that grateful people are well liked. Conversely, ungrateful people are strongly disliked. As mentioned in Chap. 4, the adjective "grateful" has been found to be one of the most liked adjectives (in the top 12 %, Anderson, 1968), and people like "appreciative" even better (in the top 9 %). The adjective "ungrateful" however, is strongly disliked. Indeed, in the Anderson study "ungrateful" fell in the bottom 2 % in terms of likeability ranking of his 555 personality-trait words. In one study we asked our participants to first list ten people they knew well (Watkins, Martin, & Faulkner, 2003). We then asked them to judge whether each person on their list was grateful, ungrateful, or neither. Participants then rated their acquaintances on several variables, including likeability. Our participants liked their grateful acquaintances much more than their ungrateful friends, and even much more than their acquaintances that were neither grateful nor ungrateful. Moreover, our participants said that their grateful friends would be much more likely to help them in the future. Similarly, McCullough, Emmons, and Tsang (2002) found that informants rated grateful people as more "helpful and unselfish with others", more "generous" with their "time and resources", and had volunteered more "time to help others" than less grateful individuals. Thus, research has shown conclusively that grateful people are well liked by their peers (see also, Suls, Witenberg, & Gutkin, 1981), and this speaks clearly to the social well-being of grateful individuals. Why are grateful people so well liked? In exploring the social benefits of gratitude below, we will see clearly why gratitude is a virtuous trait in the eyes of others.

8.2.2 Gratitude Helps Form and Bond Relationships

Several studies have shown that gratitude helps to form and bond relationships. Perhaps the study that best illustrates this pattern was that conducted by Algoe, Haidt, and Gable (2008). These authors studied the impact of gratitude on relationship formation by using a tradition that is practiced by many college sororities. In the "Big Sister Week" tradition, big sisters in the sorority are assigned a specific new member (little sisters) and shower them with anonymous gifts and favors for 1 week. Following the week of gift giving, big sisters reveal their identity to their little sisters at a "Revelations" event. Algoe and collaborators had little sisters record their gratitude for the gifts during Big Sister Week. Gratitude in response to big sister gifts significantly predicted feelings of integration in the sorority and their evaluation of their interaction with their big sister at the Revelations party. The gratitude that was experienced by the little sisters during the gift-giving week also predicted their evaluation of the relationship quality with their big sister one month after the Revelations event. Moreover, gratitude that was experienced by the little sisters predicted relationship evaluations that were provided by the big sisters. Little sister gratitude significantly predicted the big sister's evaluation of their interaction at Revelations, but also predicted relationship quality and the amount of time they spent with their little sister one month after the Revelations event. In sum, gratitude appeared to enhance the formation of the relationship between little and big sister.

Further demonstrating the power of gratitude to assist in the formation and bonding of relationships is evidence from the thought/action tendencies associated with gratitude. For example, in our "Debt of gratitude" studies (Watkins, Scheer, Ovnicek, & Kolts, 2006), we found that gratitude was associated with approach action tendencies. More specifically, projected gratitude was associated with the desire to help, praise, and be near their benefactor. Further evidence of the approach-driven action tendencies of gratitude was provided by two studies conducted by Algoe and Haidt (2009). The spontaneous responses of subjects in Study 1 perhaps best illustrate these findings. Seventy-four percent of participants who recalled a grateful memory reported positive relationship motivations, compared to only 30 % of those subjects who recalled a joy memory. Furthermore, compared to the other emotional recall conditions, gratitude produced the most frequent reports of feeling closer and wanting to build the relationship with the other person in the recollection. Indeed, the authors concluded, "This relationship-building motivation was clearest for gratitude" (p. 123).

In an intriguing study, Bartlett, Condon, Cruz, Baumann, and Desteno (2012) presented experimental evidence that gratitude enhances the desire to affiliate with others—particularly with one's benefactor. Using their computer malfunction method of inducing gratitude (see Chap. 3), they found that those induced to feel grateful were about twice as likely to choose to come back to the lab and work with their benefactor compared to those in the neutral induction condition. Clearly, gratitude motivates approach and affiliation with others, which would appear to enhance the formation of relationships.

One emotion that should enhance the formation and bonding of relationships is trust, and recent work has shown that gratitude enhances trust in others. Across two studies, Dunn and Schweitzer (2005) found that inductions of gratitude led to increased trust in an unfamiliar other. Interestingly, in Study 5 they replicated this effect but found that gratitude did not impact the trust of a familiar other. The implication seems to be that gratitude is more important for enhancing trust in the beginning stages of a relationship where there may be little known about the person with whom the relationship is developing. It should be noted that these studies used general gratitude inductions (recalling grateful memories), and it may be that for gratitude to enhance trust with a person who is well known, gratitude must be experienced specifically in response to the actions of the well known other. Alternatively, it could be that because evaluations of trust of well known others are fairly well established and thus are difficult to manipulate, a gratitude induction much stronger than that typically seen in memory inductions is required to change evaluations of trust. Whatever the case, this paper presented clear evidence that gratitude enhances trust of others. It seems reasonable to propose that because gratitude amplifies the good one sees in others, one is therefore more willing to trust others. One might wonder whether expressions of gratitude also enhance the trustworthiness of the person who is expressing gratitude. Some have suggested this idea (e.g., Bartlett et al., 2012; Gordon, Impett, Kogan, Oveis, & Keltner, 2012), and more research should be directed to this possibility. In sum, trust would appear to be important to the development of relationships, and gratitude appears to enhance trust.

Another factor likely to be important to the formation and bonding of stable relationships is the development of a communal orientation in the relationship. Early in relationships, the interaction between two people is often based on more of an exchange mentality, where benefits are provided on the basis of exchange for received benefits from the relationship partner (Clark & Mills, 1979; Mills & Clark, 1994). In other words, exchange relationships operate more on the *norm of reciprocity* (Gouldner, 1960). On the other hand, more stable and mature relationships would seem to rely on a communal orientation where the person provides benefits to their partner on the basis of perceived need rather than whether the partner has provided similar benefits to be paid back. In a series of three studies, Lambert, Clark, Durtschi, Fincham, and Graham (2010) provided compelling evidence that gratitude enhances a communal orientation in relationships. In Study 1, they found that self-report of expressed gratitude in relationships was strongly correlated with a communal relationship orientation ($r = .52$). In Study 2, reports of gratitude expression in relationships prospectively predicted increases in communal strength 6 weeks later. In Study 3 Lambert and colleagues conducted an experiment to more definitively determine the causal relationship between gratitude and the communal strength of relationships. Participants were randomly assigned to a gratitude condition where the participants were encouraged increase their expressions of gratitude to their partner, or they were assigned to one of three comparison conditions. In the neutral control condition participants simply monitored the events of the day. In the two other comparison conditions participants reflected on positive memories

associated with their relationship partner, or thought about their gratitude toward their partner. Indeed, the gratitude expression condition produced a significantly greater increase in the perception of the communal strength of the relationship than each of the three control conditions. What is interesting about these studies—and particularly about Study 3—is that expressing gratitude apparently led to greater perception of communal strength in the relationship in the eyes of the one expressing the gratitude (those receiving the grateful expressions were not studied). When one is receiving expressions of gratitude, this would seem to enhance one's perception of the communal orientation of the relationship, but why should this be the case for the one expressing the gratitude? As the authors suggest, expressing gratitude communicates information not only to one's benefactor, but to the self as well, and when one expresses gratitude this likely makes the benefits from one's benefactor more salient. Moreover, I would suggest that when one expresses gratitude this enhances the perception that the partner is providing these benefits as an act of grace, not out of obligation. Stated in terms of grateful amplification, when one experiences and expresses gratitude, this amplifies the good one sees in the other. When one clearly sees that their partner is acting on their behalf, this should enhance their ability to trust that they can relate to their partner in a communal fashion. Furthermore, the authors suggest that expressions of gratitude are likely to actually have an impact on one's relationship partner, possibly producing more benevolent action on their part (cf. Gordon et al., 2012). In any event, this series of studies provides compelling evidence that gratitude promotes the communal strength of a relationship, and this should enhance the development of long-term relationships that appear to be important to well-being.

How does gratitude help form and bond relationships? Recent evidence suggests that it might do this by promoting social inclusion, even when that inclusion is costly. Bartlett et al. (2012) used a virtual ball tossing game to investigate how gratitude might encourage social inclusion. After manipulating gratitude using their computer malfunction situation, the subject was engaged in the ball tossing game with three other subjects, one of whom was their benefactor who fixed the computer and thus saved all of the subject's work. In reality of course, the game was fixed and the other game players were only virtual, but the researchers devised a situation where passing the ball to their benefactor actually produced financial costs to the subject. The game was designed to largely exclude the benefactor (the ball was rarely passed to this "person"), and the dependent variable was simply the number of times the true subject passed the ball to their benefactor (in an apparent attempt to include them in the game). Indeed, participants in the gratitude induction condition passed the ball to their benefactor significantly more than the neutral comparison condition. Thus, gratitude appears to promote social inclusion, even when this is costly to the beneficiary who is attempting to include their benefactor. As the authors argue, social inclusion is likely to be a factor important to relationship building.

In sum, research suggests that gratitude helps form and bond relationships. Evidence to support this theory comes from naturalistic studies and from experimental manipulations in the lab. Gratitude clearly promotes approach action tendencies, and it would seem that approach is a quality essential to the formation

of any relationship. If one does not want to spend time with a person they would like a relationship with, the relationship cannot develop. Second, gratitude causes increased trust of others, and it would seem that increasing trust goes hand in hand with the development of a relationship. I would add here, that supporting and enhancing trust is likely to be important to the maintenance as well as to the formation of relationships. Furthermore, gratitude has been shown to increase the communal strength of relationships, and it also motivates social inclusion of one's benefactor. Both of these qualities should also enhance the development of relationships. There is considerable evidence that supports the idea that gratitude is important to the formation and bonding of relationships.

8.2.3 Gratitude Helps Maintain Relationships

Gratitude appears to be important to relationship building, but does it provide any benefits for relationship maintenance? Again supporting the idea that gratitude enhances social well-being, a number of studies suggest that gratitude also helps maintain relationships. Much of the research in this area has examined gratitude in long-term romantic relationships. In a 2-week daily diary study of married couples, Gordon, Arnette, and Smith (2011) found that both felt and expressed gratitude to one's spouse predicted one's own satisfaction with the relationship. Furthermore, they found that felt gratitude significantly predicted relationship satisfaction in one's partner. Somewhat surprisingly however, they found that expressed gratitude did not predict partner relationship satisfaction. Why would felt but not expressed gratitude predict relationship satisfaction in one's spouse? If anything, one would think that expressed gratitude would be the better predictor. The authors suggested that expressions of gratitude may not always result from felt gratitude—sometimes they may be interpreted by one's spouse as a manipulative gesture rather than a genuine expression of gratitude. Thus, spouses may be quite good at detecting heartfelt gratitude in their partners, and only authentic gratitude expressions enhance marital satisfaction. Expressions of gratitude may not always be interpreted in a supportive fashion, and therefore expressions of gratitude do not always enhance the relationship. Furthermore, gratitude expressions may be more out of habit rather than the result of grateful affect, and in this way one's spouse may become accustomed to these expressions and thus they lose their impact on the relationship. This study is notable because it investigated long-term relationships (mean length of relationship for the couples in the study was 20.7 years), and research has shown that marital satisfaction is important to overall subjective well-being (e.g., Arrindell & Lutejin, 2000; Russell & Wells, 1994).

Although they investigated couples in much younger relationships (cohabiting couples), the results provided by Algoe, Gable, and Maisel (2010) provide perhaps more definitive support for the contribution of gratitude to the health of romantic relationships. These authors found that gratitude *prospectively* predicted subsequent relationship satisfaction. This study also used an experience sampling methodology

where their subjects reported on various variables every night for 2 weeks. They found that thoughtful actions towards one's partner predicted increased gratitude in the partner on that day, but more importantly gratitude predicted *enhanced relationship quality on the following day*. Moreover, consistent with Gordon et al. (2011), felt gratitude predicted increased relationship quality in one's partner. For both men and women, when their partner was grateful this resulted in them feeling more connected to their partner and more satisfied with their relationship than they had felt on the previous day. It should be noted that the "thoughtful actions" performed in these relationships were typically not huge acts of sacrifice. Rather, they were simple everyday benefits that seemed to be mindful of the partner's needs, and when these acts resulted in gratitude, this enhanced the quality of the relationship. This study is notable because it studied indebtedness in addition to gratitude. They found that although thoughtful acts towards one's partner increased both gratitude and indebtedness, only gratitude predicted enhanced relationship quality on the following day. Thus, this study provided evidence that gratitude is much more than mere reciprocity behavior, and indeed reciprocity emotions such as indebtedness do not seem to have the power to enhance relationships as gratitude does.

A similar study was conducted by Kubacka, Kinfenauer, Rusbult, and Keijsers (2011) in married couples. These authors measured gratitude and other variables at three different time points about 4 years following their marriage. This study looked more specifically at the relationship between gratitude and relationship maintenance. First, they found that gratitude was often a response to a spouse's attempts at relationship maintenance. In other words, when a person saw that their partner was engaging in behaviors that they perceived to be attempts to maintain their relationship, gratitude was often experienced. Moreover, when a person experienced gratitude in response to these behaviors, this promoted more relationship maintenance behaviors on the part of the spouse. Here again we see a *cycle of virtue* or *upward spiral* involving gratitude. A person acts in a way to maintain or enhance the relationship; their partner notices these efforts and gratitude results. The gratitude experienced by the partner is also recognized and this promotes more attention to the relationship. In the words of the authors, "the experience of gratitude . . . functions as a detector and a motivator for relationship maintenance behavior" (p. 1373).

In an impressive series of studies, Gordon and colleagues (2012) provided convincing support for the power of gratitude in the maintenance of romantic relationships. Based on the prosocial aspects of gratitude and on risk regulation theory, the authors proposed an interesting model of how gratitude might create an upward spiral in relationships that promotes relationship maintenance. The unique aspect of this theory and these studies, is that Gordon et al. not only emphasized the expression of appreciation for one's partner, they also evaluated the importance of feeling appreciated by one's partner. The model proposes that if one partner in a romantic relationship (partner 'A') feels appreciated, this should lead to being more appreciative of their romantic partner (partner 'B'). When partner A feels appreciative toward their partner, this encourages relationship maintenance

behaviors (the prosocial action tendencies of gratitude). As a consequence of these relationship maintenance behaviors, partner B feels valued (appreciated) by their partner, and this creates more appreciation of their partner, which encourages relationship maintenance on their part. Relationship maintenance behaviors by partner B demonstrate to partner A that their partner appreciates them, and so they feel appreciated, thus completing this cycle of virtue (Gordon et al., p. 259). The authors provided support for these links across three studies, two of which were daily experience monitoring studies, and the third was a laboratory study. Perhaps one of the most striking findings of the paper came from Study 2 where they found that those who were more appreciative of their partner were more likely to still be in the relationship 9 months later. In a nutshell, these studies demonstrated that feeling appreciation for one's partner and feeling appreciated by one's partner were both crucial for the maintenance of romantic relationships.

Although these studies provide important results that speak to the ability of gratitude to enhance long-term relationships, all of these designs are correlational in nature and thus issues of causation are left in doubt. However, Lambert and Fincham (2011) conducted a series of four studies that showed more definitively that gratitude actually causes improved relationship maintenance behavior. Because all relationships involve deficits or problems that need attention, an important aspect of relationship maintenance is feeling comfortable enough with one's partner that one is willing to share concerns about the relationship. These studies were based on the authors' theory that when one expresses gratitude to another in a relationship, this produces a more positive perception of their partner, which in turn creates greater comfort in communicating concerns with the relationship. In Study 1, they found a simple cross-sectional relationship between expressions of gratitude toward a friend and reported comfort in expressing relationship concerns to them. In Study 2 they used a prospective design with the same measures to show that gratitude expression predicted comfort in expressing relationship concerns 3 months later after controlling for initial levels of comfort in communicating relationship concerns. Studies 3 and 4 both used experimental designs, thereby providing definitive information about causal relationships between these variables. In Study 3 participants were randomly assigned to one of three conditions. In the critical experimental condition, participants gratefully reflected on their friend. In the comparison conditions participants either reflected about what they enjoy doing with their friend, or they were assigned to a no-treatment condition. As predicted, those in the grateful reflection condition showed greater comfort in expressing relationship concerns to their friend than the two comparison conditions. Finally, in Study 4 the authors provided a more stringent test of their theory by using a longitudinal experimental design. Over a 3-week treatment period, participants were assigned to one of four activities. In the gratitude expression condition participants were instructed to express their gratitude and appreciation to their friend, and then to report about their expression. This task was completed twice per week. To control for the possibility that grateful thoughts, but not grateful expression per se, was responsible for enhanced comfort in expressing concerns, some subjects were assigned to a grateful reflection condition where the participant was to think about

things that they were grateful for in their friend. To control for the possibility of the activation of positive memories being the critical treatment factor, some subjects were instructed to simply focus on positive memories about interactions and events with their friend. Finally, in the neutral condition participants were to simply think and write about their daily activities. As predicted, participants in the gratitude expression condition showed significantly greater increases in comfort in expressing relationship concerns compared to the other conditions. Thus, expressing gratitude appears to cause people to feel more comfortable in communicating their concerns with their relationship. Moreover, mediation analyses showed that increased comfort in expressing relationship concerns was due to expressions of gratitude enhancing the positive perception of their partner. One limitation of these studies is that the primary dependent variable was self-report of one's comfort in communicating relationship concerns, which might not correspond well with actual relationship maintenance behavior. It would seem however, that in order to communicate a concern in a relationship one must first feel a certain comfort in doing so, and this study appeared to effectively measure this comfort. Taken together, these studies provide strong support for the theory that gratitude enhances relationship maintenance, or at least that gratitude enhances one's comfort in doing so.

There is also evidence that gratitude enhances a number of traits and behaviors that should be important to the maintenance of long-term relationships. For example, unless both partners of a relationship happen to be perfect people, forgiveness is likely to be important to the maintenance of long-term relationships. As reviewed previously, the traits of gratitude and forgiveness are strongly related (see Chap. 5), but more experimental work needs to be done to establish that felt or expressed gratitude toward a partner actually causes one to more easily forgive. Experimental work has confirmed that gratitude enhances cooperative behavior (e.g., DeSteno, Bartlett, Baumann, Williams, & Dickens, 2010). I will discuss this study in more depth when considering the prosocial qualities of gratitude below. Although this study did not involve cooperation in established relationships, cooperation is undoubtedly important to the health of ongoing relationships, so the fact that this study demonstrated that grateful affect causes enhanced cooperation is likely to be a finding important to considerations of how gratitude might enhance long-term relationships.

Experimental work also has shown that expressions of gratitude decrease the propensity to defensively denigrate another, and this is apparently because when one expresses gratitude it enhances the perceived social worth of the person receiving the gratitude (Cho & Fast, 2012). In this, gratitude has been shown to decrease unpleasant interactions, which of course should encourage the health of any relationship, including long-term relationships such as marriage. Gratitude may also support relationships by enhancing one's willingness to accept advice. In two experiments, Gino and Schweitzer (2008) found that those in an induced grateful state were more receptive to advice than those in a neutral or angry induction. They also found that those in a grateful state were more trusting, which might have provided a basis for accepting advice. Moreover, they found that those in the grateful condition were more accurate in their judgments of the advice. Taken together, the

emotion of gratitude would appear to enhance people's ability to gain from advice. When seen in the context of relationships, being able to accept and use advice from one's relationship partner is likely to be another important quality of relationship maintenance.

To summarize, not only does gratitude grease the formation of relationships, it appears to provide significant benefits that enhance the maintenance of relationships as well. Both correlational and experimental studies provide evidence that gratitude enhances relationship satisfaction, and this may be due to the fact that gratitude enhances relationship maintenance behaviors, enhances trust and the ability to accept advice, increases group cooperation, and reduces behaviors that damage relationships such as defensive denigration. Interestingly, many of these studies were conducted in the context of long-term relationships. Thus, contrary to what some seem to suggest (McCullough, Kimeldorf, & Cohen, 2008), gratitude is not only important to the early development of relationships, it appears to be important to nurturing of long-term relationships as well. Further research may show that gratitude is a critical component of happy enduring marriages. Indeed, experiencing and expressing gratitude appears to enhance one's relationships. The words of Marcel Proust appear to be sage advice: "Let us be grateful to people who make us happy, they are the charming gardeners who make our souls bloom."

8.2.4 Gratitude Promotes Prosocial Behavior

> Thus gratitude lies at the very heart of ethics. It is more basic, perhaps, than even duty and obligation.
>
> –Robert C. Solomon

It is not too much of a stretch to conclude that the verdict is in: gratitude is definitively a prosocial emotion. One reason that grateful people are well liked and that gratitude enhances social well-being is that gratitude promotes prosocial behavior—both in the person experiencing gratitude and in the person receiving the expression of gratitude. Not only does gratitude amplify the good one sees in others, gratitude also amplifies one's motivation to do good to others. In this section I will review the research that supports this conclusion, first by showing that the emotion of gratitude promotes prosocial behavior in the grateful person. Some evidence suggests that gratitude also inhibits antisocial tendencies. Second, I will show how prosocial behavior is enhanced in people who receive expressions of gratitude. To use McCullough and colleagues' (2001) terminology, gratitude is a "moral reinforcer." To anticipate, evidence appears to support the conclusion suggested by Solomon above (1984, p. vi), that "gratitude lies at the very heart of ethics."

Simple evidence supporting the prosocial nature of gratitude came from our "Debt of gratitude" studies (Watkins et al., 2006). Recall that this paper included two vignette studies where participants reported how they would respond to a favor, both in terms of their emotional responses and their thought/action tendencies.

In both studies, the thought/action tendencies that were associated with gratitude were clearly prosocial. In Study 1, gratitude was moderately to strongly associated with the action tendencies of adoring ($r = .57$), approaching ($r = .40$), and yielding ($r = .30$) to their benefactor. The "Adoration" thought/action tendency factor included items such as "I would feel like praising my friend", "I would feel like expressing happiness to my friend", and "I would feel like giving my friend a gift." Notably, indebtedness was not correlated with any of the action tendency factors. Probably because we used somewhat different thought/action tendency items in Study 2, we found a different factor structure with these items, but the results were highly consistent with Study 1. Gratitude was strongly associated with our "Positive Response/Approach" factor ($r = .44$), and this factor included items such as "I would feel like approaching or making contact with this person", "I would want to pay more attention to this person", and "I would feel like doing something for this person." Clearly, the results of this study pointed to the conclusion that gratitude is an emotion of approach, and motivates approach with prosocial intentions. Consistent with our work, McCullough, Emmons, and Tsang (2002) showed that trait gratitude is also significantly associated with reports of prosocial behaviors.

More compelling results have come from the lab of David DeSteno and his collaborators. First, in a series of three studies, Bartlett and DeSteno (2006) demonstrated the prosocial proclivities of gratitude. In Study 1, they used their computer malfunction procedure to induce gratitude (see Chap. 3). Recall that in this technique a confederate helps the true subject with a computer malfunction which ends up saving her a considerable amount of work that she had completed on the computer. This condition was compared to a neutral and an amusement condition. The dependent variable was the amount of time the subjects were willing to spend on a "tedious and cognitively taxing" survey. The confederate made a request to complete the 30-min survey so as to specifically measure prosocial behavior directed toward the benefactor. The reason this boring survey was used as their dependent variable was to test their idea that gratitude is somewhat specific in promoting not only prosocial behavior, but also prosocial behavior that is costly to the beneficiary. Indeed, the gratitude condition resulted in the most costly prosocial behavior. For me, the results were quite striking: people in the gratitude condition spent six minutes more on the survey than those in the neutral condition, and more than eight minutes than individuals in the amusement condition. Although positive emotion in general is known to promote altruism, there appear to be restraints on this effect because when the altruism called for is hedonically costly, positive affect actually decreases the likelihood of engaging in altruism (e.g., Isen & Simmons, 1978). But the results here show the distinct character of gratitude; gratitude enhances prosocial behavior even when it is hedonically costly. Moreover, the authors found that the emotion of gratitude mediated the effect.

In Study 2, Bartlett and DeSteno (2006) again compared their gratitude induction with a neutral induction on costly prosocial behavior, but they added an interesting manipulation. They also varied the person asking for help, either the benefactor or a stranger. Again they found that gratitude produced more prosocial behavior for the benefactor asking for help, but it also produced more prosocial behavior when a

stranger was asking for the help. If "gratitude" is nothing more than the activation of the cognitive principle of the *norm of reciprocity* (Gouldner, 1960), then one would expect more prosocial behavior when the benefactor is asking for the favor, but not when a stranger requests help. The fact that they found that gratitude promoted more prosocial behavior when both the benefactor and a stranger requested help supports their theory that it is gratitude, not the norm of reciprocity, which is producing these effects.

More recently DeSteno et al. (2010) found that gratitude promotes prosocial behavior in economic exchange. Using their computer malfunction gratitude induction, the authors found that gratitude promoted more cooperative giving to others even when this provided financial costs to the giver. Again they found that this impact of gratitude on financial giving applied not only to giving to their benefactor, but to a stranger as well. Thus, the authors once again eliminated the alternative explanation of the norm of reciprocity. From the results of their study the authors concluded, "gratitude can be seen as an emotional state that decreases the probability of selfish economic action, most likely in the service of fostering trust and stable economic exchange that together constitute a necessary element for social flourishing" (p. 292). Using a different method of inducing gratitude and a completely different measure of prosocial behavior, Tsang (2006) also found that gratitude produced more prosocial behavior than a positive condition. Participants received an identical benefit in both experimental conditions, but whereas in the general positive condition they received the benefit by chance, in the gratitude condition the benefit that the subjects received came from a benefactor. As with DeSteno's studies, Tsang demonstrated that gratitude has a specific prosocial action tendency that appears to go above and beyond general positive affect.

The findings that gratitude promotes prosocial behavior even when it doesn't feel good to do so are likely to have important consequences for social well-being. In an enlightening essay, DeSteno (2009) brings home this possibility. He argues that in order to have stable and supportive long-term relationships, often one must inhibit a response that feels good right now, in order to foster a more distant advantage to the relationship. Stated differently, when it comes to relationships, often short-term gain results in long-term pain. For example, if a married man goes to a conference and responds to the immediate pleasures of infidelity with another woman, this is likely to have long-term painful consequences with his wife. Thus, when it comes to maintaining long-term relationships that support social well-being, in many situations it is adaptive to resist immediate emotional fulfillment (i.e., temptations), in order to foster long-term social well-being. Usually this "intertemporal choice" is portrayed as a conflict between emotion and reason: Will I respond to the "hot" emotion that is impacting me now, or will I use reason to overcome these damaging passions? DeSteno argues however, that this need not be the case. Indeed, there may be other "hot" emotions that serve to support long-term relationships, and these "hot" emotions can "parlay" the immediate impact of emotions that may cause damage to long-term relationships. DeSteno argues convincingly that gratitude is such an emotion. Thus, gratitude for my wife may provide me the impetus to engage in sacrifices for her that may be emotionally costly, and these

behaviors may be important to the health of the relationship in the long run. In brief, gratitude may help one delay gratification, which should promote social well-being. I would submit that this benefit of gratitude might extend beyond the relational realm (although it is probably in relationships where this is most important). Being grateful for what one has may enable delay of gratification that then prevents material purchases that turn out to be irrelevant to well-being. Thus, DeSteno's demonstrations that gratitude promotes prosocial behavior even when it hurts, provides compelling evidence that gratitude is an important emotion for the support of healthy long-term relationships that appear to be so important for well-being.

How does gratitude promote prosocial behaviors? The research I have reviewed thus far suggests that when one feels grateful, this immediately enhances prosocial action tendencies. But gratitude may also impact altruism in the long run. If gratitude leads to greater contentment, theoretically this should decrease greed because one should be more satisfied with what they have. By decreasing greed this should make one less likely to cling to their time and belongings, thus allowing one to be more willing to give of their resources. This notion is of course quite speculative at this point, but would appear to be a reasonable theory for gratitude researchers to test.

Not only does gratitude promote prosocial behavior, some evidence suggests that gratitude inhibits antisocial behavior as well. For example, in our "Debt of gratitude" studies, we found that gratitude was inversely correlated with antisocial thought/action tendencies (Watkins et al., 2006). In Study 1 gratitude was negatively associated with all three of our antisocial action tendency factors. Study 2 also showed an inverse relationship with our only antisocial action tendency factor ($r = -.42$).

DeWall, Lambert, Pond, Kashdan, and Fincham (2012) presented even more convincing support for the theory that gratitude inhibits antisocial tendencies. Across five studies using cross-sectional, prospective, and experimental designs, they found converging evidence that gratitude serves to inhibit aggression. Studies 1 and 2 were experience sampling studies, and they found that gratitude was inversely associated with aggression in daily experience, and more specifically in social interactions. Studies 4 and 5 presented cross-sectional and prospective evidence that empathy mediates the relationship between gratitude and lower levels of aggression. In other words, it appears that gratitude inhibits aggression by promoting empathy towards others. Study 3 was an experimental study that provided more convincing causal evidence for the relationship between gratitude and a lack of aggression. In the control induction condition (writing about positive things they would like to do), they found that individuals who were provoked administered more bursts of white noise (a commonly used measure of aggression) to the one who insulted them than those who were not insulted. This is the typical finding from aggression research, but more notably, those in the gratitude condition did not exhibit this pattern at all. In fact, those who were induced to feel grateful showed no evidence of increased aggression when they were insulted compared to no insult. This provides more evidence for DeSteno's (2009) theory that gratitude helps delay gratification in social interactions. When one is angry, the most gratifying response is to express

one's anger with aggression. Releasing one's anger in aggression however, may have deleterious effects on relationships. This study showed that gratitude appears to allow one to inhibit this gratification. Furthermore, the fact that gratitude inhibits aggression may help to explain the relationship between gratitude and forgiveness. If gratitude inhibits hostility and aggression, then it stands to reason that when one is grateful, forgiveness of a transgressor would be more likely. This would be an interesting possibility for researchers to investigate in the future.

To summarize, studies have provided convincing evidence that gratitude is distinctively a prosocial emotion. Not only does gratitude promote prosocial behavior more generally, evidence has also emerged that gratitude promotes *costly* prosocial behavior. When individuals are induced to feel grateful, they are more likely to help others, even when that assistance is hedonically unpleasant. Moreover, gratitude appears to inhibit antisocial responses, particularly those damaging reactions related to anger.

We have seen that the emotion of gratitude prompts altruism in the person experiencing the gratitude, but do expressions of gratitude promote prosocial behavior in others? Or, to use McCullough et al.'s (2001) provocative prose, gratitude is a "moral motivator", but is it a "moral reinforcer" as well? I now explore research related to this question. A number of experimental studies have found that a simple expression of "thank you" for a benefit produces an increased likelihood of helping behavior in the person receiving the thanks (for a review, see McCullough et al.). For example, in one study a researcher asked for directions, and after receiving this assistance they simply then thanked their helper or did nothing (Moss & Page, 1972). People who were thanked were significantly more likely to help someone who had dropped their books. An even more striking example of the reinforcement properties of gratitude expression comes from a study by McGovern, Ditzian, and Taylor (1975). They found that a simple "thank you" led to the gratitude recipient actually taking significantly more shocks for the confederate. In the words of one paper, "A little thanks goes a long way" (Grant & Gino, 2010). Moreover, it quite literally pays to say "thank you." For example, several studies have found that a written "thanks" on one's restaurant bill significantly increases tips (e.g., Rind & Bordia, 1995).

Here, it is important to highlight an important caveat to the reinforcing properties of grateful expression. Some research suggests that if a gratitude expression is perceived to be an explicit attempt to receive more favors, this expression can backfire. In one study (Carey, Clicque, Leighton, & Milton, 1976), a jewelry store either called customers to thank them for their business, called them to thank them for their business and informed them of an upcoming sale, or past customers received no call. Somewhat surprisingly, those who received the simple thank you call spent significantly more money in the coming months at the store than the other two conditions. It seems that those who received the call that expressed gratitude and informed them about an upcoming sale, interpreted the gratitude expression as something less than genuine. In other words, this expression of gratitude was interpreted as simply an attempt to get more business. Other research also suggests that when gratitude expressions are interpreted as disingenuous, they

are not effective as moral reinforcers (e.g., Goldman, Seever, & Seever, 1982; Watkins et al., 2006). This presents an interesting paradox. Although gratitude can bring people much social good, if one expresses gratitude in order to get that good, gratitude won't be much good for them.

Although there are exceptions, the preponderance of evidence strongly supports the theory that gratitude is a strong reinforcer of prosocial behavior. It should also be mentioned that failure to express gratitude is experienced as very aversive (see McGovern et al., 1975; Suls et al., 1981). Taken together, gratitude is a moral reinforcer but ingratitude is a moral punisher, reflecting Seneca's famous remark "Ingratitude . . . is an abomination." How do expressions of gratitude motivate prosocial behaviors in others? Grant and Gino (2010) investigated this question in a series of three studies. Replicating the findings reviewed above, in Studies 1 and 2 they found that a simple written expression of gratitude produced greater prosocial behavior than their control conditions. As with other studies, they found that those receiving expressions of gratitude were more likely to help the one expressing gratitude and others as well. In Study 3 they essentially replicated these findings in a field experiment. What was of primary interest to Grant and Gino however, were the mechanisms that help explain this effect. They investigated two mechanisms: self-efficacy and social worth. The idea here was that when one expresses gratitude, this might enhance both the benefactor's self-efficacy and their feelings of social worth, which then motivates them to engage in prosocial behavior. Interestingly, in all three studies only social worth was shown to mediate the effect of grateful expression on prosocial behavior. In other words, this study showed that grateful expression produced more prosocial behavior in benefactors because when one expresses gratitude, the benefactor feels more socially valued. Here again we see that gratitude appears to amplify the good in others, in this case it appears to amplify one's feelings of social good.

In sum, there is now considerable evidence supporting the prosocial aspects of gratitude: experiencing gratitude motivates one to engage in prosocial behavior, even when it is costly, and expressions of gratitude motivate prosocial behavior in others. Indeed, it appears that gratitude is both a *moral motivator* and a *moral reinforcer*. Note how these qualities might feed on each other, and produce upward spirals that enhance the well-being of entire groups. Adam Smith (1790/1976) may be correct; gratitude may be an essential virtue for free societies. In his words, "The sentiment which most immediately and directly prompts us to reward, is gratitude" (1790/1976, p. 68).

8.3 Conclusion: The Find-Remind-and-Bind Theory of Gratitude

In this chapter we have seen that gratitude has considerable social benefits. Gratitude amplifies the good one sees in others, gratitude amplifies one's motivation to do good to others, and expressions of gratitude amplify the good in others. Because

supportive and enduring relationships appear to be important to happiness, the evidence reviewed in this chapter presents one of the strongest mechanisms that helps us understand the gratitude/well-being relationship: gratitude may enhance well-being because it promotes social well-being. Stated more succinctly, one of the most important "hows" of the goodness of gratitude appears to be that gratitude is good for one's social well-being. Gratitude appears to be particularly good for one's relationships, and I have found that Sara Algoe's (2012) *find-remind-and-bind theory* is a particularly informative way of summarizing the social benefits of gratitude that we have seen in this chapter. Algoe argues convincingly that gratitude functions to help people *find* new dyadic relationships, helps to *remind* individuals of ongoing dyadic relationships that are important to living well, and helps to *bind* those relationships into enduring and supportive social structures. The evidence that I have reviewed in this chapter strongly supports this formulation. First, we have seen that grateful people are well liked, and this is probably because gratitude helps *find and bind* new relationships. Gratitude also appears to be important to ongoing relationships, and in this gratitude functions to *remind* people to maintain relationships that are important to their well-being. Furthermore, we have seen that gratitude *binds* relationships in that it helps maintain ongoing relationships. Finally, we have seen that gratitude may *find-remind-and-bind* in that it is a distinctively prosocial emotion. Experiencing gratitude in a relationship promotes relationship-enhancing behaviors, and expressing gratitude to a relationship partner creates behaviors in them that support the relationship.

In sum, gratitude is good for one's social well-being because it appears to amplify the social good in one's life. Gratitude amplifies social good in that it tells individuals—at times quite loudly and clearly—who is good for them, and how they are good for them. Moreover, gratitude also amplifies the social good within one's self. When one is experiencing gratitude, it amplifies her propensity to be good to others. In the social realm, giving begets gratitude, and gratitude begets giving. I would go even further; prosocial behavior that is motivated by gratitude is likely to be more enjoyable than that motivated by indebtedness, obligation, guilt, or the norm of reciprocity. Thus, giving that is motivated by gratitude may be a particularly enjoyable form of giving. Indeed, perhaps Chesterton was right: "The best kind of giving . . . is called thanks giving" (1924/1989, p. 156).

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Chapter 9
Does Gratitude Enhance Coping Ability?

The real voyage of discovery consists not in seeing new landscapes, but in having new eyes.

–Marcel Proust

Where we find difficulty we may always expect that a discovery awaits us. Where there is cover we hope for game.

–C. S. Lewis

It is possible to avoid all problems in life, to live a cowlike existence of tranquility and peace without sweat of any kind. This can be easily accomplished by having a prefrontal lobotomy or by perpetually ingesting alcohol, narcotics, or tranquilizers.

–Abraham Maslow

Two of the greatest Russian writers experienced remarkably similar traumatic events that changed their lives. In 1849, just before he was to be shot in the firing line, Fyodor Dostoevsky received an unexpected pardon. In 1954 Aleksandr Solzhenitsyn was discharged from a Tashkent hospital and was sent home to die of terminal cancer. Just weeks before his anticipated death, he was unexplainably healed. Both of these men experienced a rebirth of sorts, a reprieve on life that gave them a newfound sense of appreciation and gratitude. In Solzhenitsyn's words,

> I did not die, however. With a hopelessly neglected and acutely malignant tumor, this was a divine miracle; I could see no other explanation. Since then, all the life that has been given back to me has not been mine in the full sense: it is built around a purpose. (Cited in Guinness, 1998, p. 205).

Walking to the firing line and being but weeks from dying of an apparently incurable disease are circumstances that none would wish for. And yet, in both of these traumas these men took away from their experience something they did not have before: a new sense of purpose and a deep appreciation for life itself.

P.C. Watkins, *Gratitude and the Good Life: Toward a Psychology of Appreciation*, DOI 10.1007/978-94-007-7253-3_9,

The lives of Dostoevsky and Solzhenitsyn don't seem to fit well with the distinctively Western way of happiness. Personally, I would prefer to have a life full of successes and pleasures, where the road is level, smooth, and clear of all obstacles. But Maslow saw—in what now seems to be a prescient piece—that this way of happiness is misdirected (Maslow, 1996, first written in November of 1964). Maslow wrote, "It is time to jettison the conventional, hedonistic definition of happiness as simply a state of pleasure without pain" (p.1 21). Maslow pointed out that by pursuing the path of least resistance—the road of pleasure without pain—one might miss some of the greatest joys in life. For example, parents could avoid much pain by never having children in the first place. But as Maslow observed, "It is a privilege to have children to weep over because of their troubles, rather than to have no children at all" (p. 22). The person who seeks well-being by avoiding all suffering will undoubtedly have to avoid all relationships, and as we saw in Chap. 8, people who do not have meaningful relationships, are rarely happy. One can avoid many stressors by avoiding other people, but they will probably avoid happiness as well. In the words of an old Yiddish proverb, "He that can't endure the bad, will not live to see the good." C. S. Lewis understood as well that the reality on which happiness is based is not a dreamlike actuality. In his *Letters to Malcolm* he wrote,

> Bemused and besotted as we are, we still dimly know at heart that nothing which is at all times and in every way agreeable to us can have objective reality. It is of the very nature of the real that it should have sharp corners and rough edges, that it should be resistant, should be itself. Dream-furniture is the only kind on which you never stub your toes or bang your knee. You and I have both known happy marriage. But how different our wives were from the imaginary mistresses of our adolescent dreams! So much less exquisitely adapted to all our wishes; and for that very reason (among others) so incomparably better (Lewis, 1963, p. 76).

Lewis understood that the reality of happiness was a hard reality on which we often bang our knees and stub our toes. The "dream-furniture" of which we would like to construct happiness, actually leads elsewhere. One reason that people might avoid potential stressors is because they do not cope well with unpleasant events. But research shows that one of the salient characteristics of grateful people is that they appear to cope with difficult events particularly well. Thus, one way that gratitude may contribute to well-being is by promoting successful coping.

How does gratitude enhance happiness? Gratitude might support well-being by enhancing one's ability to cope with unpleasant events. In this chapter I explore this issue. If gratitude enhances coping ability, this could support human flourishing in two ways. First, by supporting adaptive coping this should help heal the unpleasant emotions that often result from difficult circumstances. To paraphrase a crass euphemism, "stress happens." It simply is not possible to avoid stressful events in life, but grateful people appear to be able to deal with these events well. Second, if gratitude is a good way of coping with painful events, then grateful people should be less likely to avoid events and people that might be associated with potential loss and disappointment. For example, grateful people should be more likely to pursue something or someone that could possibly result in rejection (like a grant, a

publication, a particular graduate school or job appointment, or a potential lover), because they are confident that they will be able to cope with the disappointment should it occur. In this chapter I will first explore how positive emotion may be important to the coping process. Second, we will see that gratitude is often experienced in the wake of trauma, and thus may be a useful emotion in dealing with the event. Then I will show that grateful individuals cope with difficult events quite well. Finally, I will explore more experimental work that helps us understand *how* grateful coping supports well-being.

9.1 The Importance of Positive Emotion in the Coping Process

Although the focus in the stress and coping literature has been on the regulation of negative affect (Kashdan, 2006), recently evidence has come to light indicating that positive emotions are important to healthy coping. The work of Folkman first suggested that the experience of positive emotions might be important in coping with stress (Folkman, 1997; Folkman & Moskovitz, 2000), but recently more research has lent support to her emphasis.

We now have direct evidence supporting the idea that the experience of positive emotions during a crisis helps individuals deal effectively with the experience. Positive affect assists in dealing with trauma in at least two ways. First, several studies have shown that positive emotion helps "undo" the physiological consequences of stress. In several laboratory experiments, Fredrickson and colleagues have shown that positive emotion inductions help sooth and even undo the physiological consequences of negative emotional states (Fredrickson & Levenson, 1998; Fredrickson, Mancuso, Branigan, & Tugade, 2000). These researchers showed that after the induction of negative states, positive emotion inductions resulted in faster returns to physiological baseline than neutral or sadness comparison conditions. Notably, the activation level of the positive emotion induced did not seem to matter; low-activation positive emotions were just as effective at undoing the impact of negative emotions as high-activation positive states.

Secondly, there is evidence that positive emotions assist individuals in the midst of crisis because they broaden people's cognitive abilities in a way that enhances adaptive coping. Fredrickson has presented some impressive evidence showing that the induction of positive emotions results in broadened thought/action tendencies, and a more global perspective (Fredrickson & Branigan, 2005; see also Watkins, Scheer, Ovnicek, & Kolts, 2006). Indeed, more recent work has shown that those who experience more positive emotions tend to take a broader perspective on their problems (Fredrickson & Joiner, 2002). This suggests that positive emotions help people keep their problems in perspective; they are able to see the big picture of the "forest" of their problems rather than getting lost in the "trees" of their issues.

Fredrickson presented more direct evidence showing the importance of positive emotions in the midst of crisis (Fredrickson, Tugade, Waugh, & Larkin, 2003). In this study she found that psychological resilience predicted emotional recovery from the emotional consequences of the terrorist attacks of 9/11 (indexed by a lack of depression). But more importantly they found that the experience of positive emotions such as gratitude, interest, and love following the attacks fully mediated the relationship between resilience and effective coping. In other words, this study showed that the reason that resilient individuals cope effectively in crises is because of the beneficial impact of positive emotions. Taken together, these studies provide strong support for the importance of positive emotions in dealing effectively with trauma.

Not only may the experience of positive emotion be crucial in the midst of crisis, evidence also supports the proposal that the experience of positive emotions during times of non-crisis builds the needed resilience, which is a trait predictive of successful recovery from stress. *Ego resilience* has been a useful construct in the coping literature. Briefly, it is a multifaceted trait that allows an individual to be flexible in adapting to changing circumstances (Block & Block, 1980; Block & Kremen, 1996). Individuals who rigidly apply certain coping styles across situational domains cope poorly compared to individuals who are able to adapt their coping to what each situation calls for. In a recent study, Cohn et al. (2009) found that experiencing positive emotions builds resilience, which in turn supports subjective well-being. In this prospective study, the growth in resilience that was apparently produced by frequent experience of positive emotions fully mediated the relationship between positive emotion and life satisfaction. This provides further support for the *build* aspect of *Fredrickson's Broaden and Build theory* of positive emotions (1998, 2001). Not only do positive emotions broaden the scope of attention, cognition, and action in the moment, they also benefit individuals by building resources for the future. In this case, positive emotions appear to build cognitive resources such as resilience that greatly assist individuals in dealing with difficult events in their life.

We have seen that the trait of resilience tends to enhance the experience of positive emotions in the midst of trauma, and that the frequent experience of positive emotions enhances the quality of resilience. Taken together, these findings suggest a *cycle of virtue* (Watkins, 2004) or *upward spiral* that may be important when considering how individuals effectively deal with stressors. Evidence supports the theory that positive emotions help build the trait of resilience which enhances one's ability to cope with troubling life events. Moreover, individuals high in resilience are more likely to experience positive emotions in the midst of crises, which appears to enhance their ability to deal effectively with these events. Thus, positive emotions build resilience and resilience enhances positive emotion, providing a powerful explanation for why some people seem to flourish in the midst of difficult circumstances. In sum, the experience of positive emotions appears to be important to adaptive coping, and gratitude is one of these crucial affects. But does gratitude provide any unique benefits to the coping process?

9.2 Experiencing Gratitude in the Midst of Trauma

The thesis of this chapter is that gratitude enhances coping. But perhaps this theory is wrongheaded from the beginning. Is it even appropriate to encourage gratitude—the emotion experienced when one is given something good—when they are in the midst of a bad situation? Perhaps it is not reasonable for people to experience a positive emotion like gratitude when they are suffering through trying times. These are legitimate concerns, but research shows that in fact, gratitude is relatively common following a significant stressor. For example, in an early qualitative study, Coffman (1996) found that gratitude was the dominant emotional theme in those who had survived Hurricane Andrew. Similarly, the work of Teigen has found that gratitude often follows in the wake of significant disasters (Teigen, 1997; Teigen & Jensen, 2011). Indeed, in Fredrickson and colleagues' (2003) study of resilience and positive emotions following the events of 9/11, she found that gratitude was the most frequently experienced emotion in the weeks following this event. Of note was the fact that gratitude was even experienced more frequently than any unpleasant emotion (anger was the most frequently reported negative affect). Similarly, we found that trait gratitude was higher in students in the fall of 2011 than in the fall quarters of the previous 2 years (Watkins, Masingale, & Whitney, 2003). Because we were assessing trait gratitude in this study, which should be a relatively stable trait, we felt that this result was a particularly strong test of the notion that traumatic events can bolster gratitude. In convergent findings, Peterson and Seligman (2003) found that gratitude rose in the months following this tragic event.

Taken together, these studies show that gratitude is a common response following stressful events, and thus if gratitude is an emotion that aids in recovery, it should be available for those who are working through a crisis. Moreover, these results make the provocative suggestion that difficult life events might even be important in the development of the grateful person (see Emmons, 2007, and Chap. 5 in this volume). But why would trauma promote gratitude? Here, I have found Janoff-Bulman and Berger's (2000) chapter on trauma and appreciation to be very helpful. These authors argue that while trauma produces significant cognitive and emotional disruptions, there are benefits that may arise from these disruptions. These benefits can be characterized by an increased appreciation of the important things in one's life. Janoff-Bulman and Berger offer a simple but helpful definition of *appreciation*, namely that psychological appreciation takes place when we appraise something as having increased value. It is not uncommon for trauma to create significant disruptions in one's life. Often it shatters one's just and safe world concept—the mindset that one can be confident in their safety and that one gets what one deserves in life. But although one type of meaning is shattered in the wake of trauma, another type of meaning (significance) increases. In the words of the title of another paper by Janoff-Bulman, people move "From meaningless world to meaningful life" (Janoff-Bulman & Frantz, 1997).

According to Janoff-Bulman and Berger, this change in perspective is primarily accomplished through an increased appreciation of the daily and ordinary—yet important—things in one's life. In my terminology, I would argue that difficult events increase an appreciation for simple pleasures, a core facet of the grateful disposition (Watkins, Woodward, Stone, & Kolts, 2003). Hedonic adaptation is a key issue in the maintenance of happiness, and one reason that boosts in emotional well-being are difficult to maintain is that people tend to adapt to daily blessings because they are so constant. Daily benefits become routine, people tend to deal with them in an automatic fashion, and therefore they cease to notice and appreciate simple pleasures. As Janoff-Berger and Bulman observed, "We rarely stop to smell the roses, because they are not apt to be noticed on the path we walk daily" (2000, p. 34). These authors argue that one of the most significant psychological consequences of trauma is that it disrupts much of the automaticity in one's life. This of course has deleterious consequences; simple routine activities like reading and conversing become very difficult because intrusive thoughts related to the trauma disrupts these simple activities that are normally performed automatically. But there are positive consequences to the disruption of the daily routine. Because distressing events tend to knock one out of the "autopilot mode", this may also break the routine of daily blessings as well. Hence, one may begin to notice and thus appreciate simple pleasures that formerly one took for granted. Note how the following excerpt from a bereaved person illustrates how trauma can disrupt automatic processes and thus increase one's awareness:

> I think I'm much more conscious of the life around me, where people are going in their lives. I see a lot of people without much life, and I don't want to do that. I don't want to be lifeless. You have to be really conscious of what you're doing and where you're going. (Davis & Nolen-Hoeksema, 2001, p. 735)

Not only do survivors of trauma increase their attention to daily blessings, appreciation also involves attributing a specialness to these events that was not present before the trauma. Folkman refers to this tendency as the infusion of ordinary events with positive meaning (Folkman & Moskovitz, 2000). This trend is illustrated well in this breast cancer survivor from Taylor's work (1983, p. 1163):

> I have much more enjoyment of each day, each moment. I am not so worried about what is or isn't or what I wish I had. All those things you get entangled with don't seem to be part of my life right now.

Why should these ordinary blessings gain so much significance following a traumatic event? When one survives a significant trauma they are often confronted with the unavoidable image of non-existence. Particularly when one goes through a life-threatening event, one sees much more clearly the possibility of death and non-existence. Before a life-threatening event, life itself is taken for granted because it is a constant that always seems to be there. After one goes through an event where death is at their door, the possibility of non-existence becomes very real. In this context I believe that Chesterton (1905/1986a, p. 69) offers us insight:

> The truth is, that all genuine appreciation rests on a certain mystery of humility and almost darkness ... Until we realize that things might not be, we cannot realize that things are. Until we see that darkness we cannot admire the light as a single and created thing. ... It is one of the million wild jests of truth that we know nothing until we know nothing.

When one goes through a difficult life experience, one often gains an understanding of "nothingness"; one understands in a new way what it might mean to "not be." When one understands that there is nothing that necessarily has to be, then one should be able to better appreciate the simple pleasures that are. Thus far, the evidence supporting Janoff-Bulman and Berger's theory of appreciation and trauma is largely correlational and anecdotal. Is there more definitive evidence to support these ideas?

Recently we conducted a study in my lab that offered experimental support for the idea that enhancing one's recognition that life might "not be," increases gratitude and appreciation for life (Frias, Watkins, Webber, & Froh, 2011). After measuring state gratitude and other positive emotional states, students were randomly assigned to one of three conditions. In our control condition they were simply guided through thinking about the thoughts of the day. In the mortality salience condition students wrote about their own death. In the death reflection condition, participants were guided through a vivid scenario imagining their own death in a house fire (Cozzolino, 2006; Cozzolino, Staples, Meyers, & Samboceti, 2004). Gratitude was significantly greater in both death salience conditions compared to controls, but increased more in the death reflection condition than in the mortality salience treatment. Moreover, we found that this effect was independent of positive affect more generally: while gratitude increased in the death reflection condition, positive affect actually went down. Thus, this study provided clear experimental evidence that when one is vividly and concretely confronted with the possibility of one's own death, gratitude is enhanced. Is a traumatic event required to realize the real possibility of death? Apparently not, because in our study we gained this effect through an imagination task. Perhaps when one comes to recognize and accept the reality of one's mortality, they will grasp along with Chesterton (1908/1986b, p. 267) that "Life is not only a pleasure but a kind of eccentric privilege." In sum, we have seen that gratitude is a common emotional response in difficult times, and thus gratitude is available for helping one deal with trauma. But is gratitude really an effective tool for dealing with difficult circumstances? I now explore research that speaks to this question.

9.3 Grateful People Cope Well

A number of correlational studies have suggested that grateful people seem to cope with difficult life events particularly well. We had strong clues about their coping ability in an early study where we investigated the emotional intelligence (Mayer & Salovey, 1995) of grateful people (Watkins, Christensen,

Lawrence, & Whitney, 2001). As expected, in two studies we found that trait gratitude was strongly correlated with measures of emotional intelligence. Of particular interest to our discussion here lies in the facet of emotional intelligence that was most strongly associated with trait gratitude. Although the GRAT was moderately to strongly correlated with all three subscales of the Trait Meta-Mood Scale (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995), it was most strongly associated with the Mood Repair subscale ($r = .62$). Thus, grateful people appeared to be particularly good at repairing their unpleasant moods. Consistent with this finding, Wood, Joseph, and Linley (2007) found that grateful people tended to report using positive adaptive coping strategies, and were less likely to use avoidant maladaptive coping strategies such as alcohol use, self-blame, and denial.

In another study conducted in the lab of my colleague Russell Kolts, we investigated the relationship between gratitude and PTSD symptoms in students who had been through a trauma that met DSM trauma criteria (Masingale et al., 2001). Participants were divided into high, moderate, and low gratitude groups based on their scores on the GRAT. As predicted, we found that those high in gratitude showed significantly less PTSD symptoms than the other groups. Indeed, those high in gratitude had roughly half the PTSD symptoms as those low in gratitude. In a similar study, Vernon et al. (2009) found gratitude was negatively associated with PTSD symptoms in women with a history of trauma. Notably, gratitude predicted PTSD symptoms independently of proactive coping.

The association between gratitude and coping has now been demonstrated in a wide variety of population groups. In several studies, Kashdan and associates have investigated the association of gratitude and PTSD. They found that gratitude was lower in combat veterans with PTSD than those without PTSD (Kashdan, Julian, Merrit, & Uswatte, 2006; Kashdan, Uswatte, & Julian, 2006). Pastors high in gratitude have been shown to cope better with the demands of their profession (Lee, 2010). Moreover, recent studies of breast cancer victims have shown that gratitude was positively associated with emotional (Ruini & Vescovelli, 2013) and social well-being (Algoe & Stanton, 2012).

Whereas the association of gratitude with successful coping has now been found in an impressive number of studies, the studies described to this point are largely cross-sectional in nature. Although these studies support the theory that gratitude enhances effective coping, they also support the idea that effective coping enhances gratitude. More powerful evidence for the beneficial impact of gratitude on coping would be attained in longitudinal studies. Wood, Maltby, Gillett, Linley, and Joseph (2008) conducted the study that most directly speaks to how gratitude may enhance coping using a longitudinal design. Because this study is important and it relates more directly to the concern of the following chapter (gratitude and the inhibition of negative affect), I shall discuss it in more detail in Chap. 11. Briefly, Wood et al. measured gratitude and a number of well-being variables at two time points in two separate studies. Results most clearly supported the model that gratitude increases social support, and decreases stress and depression across time. Thus, these results support the theory that gratitude enhances coping, which then decreases the likelihood of stress and depression.

9.4 The How of Grateful Coping

9.4.1 Grateful Reframing

How does gratitude enhance coping? Stated differently, why does gratitude promote successful coping? As mentioned above, Wood et al. (2007) found that trait gratitude was associated with several adaptive coping styles. Whereas gratitude was positively associated with coping styles such as active coping and using instrumental and emotional social support, the coping strategy that was most strongly associated with gratitude across the two samples was "positive reinterpretation and growth." Example items from this scale of the COPE (Carver, Scheier, & Weintraub, 1989) include: "I try to grow as a person as a result of the experience", "I try to see it in a different light, to make it seem more positive", and "I look for something good in what is happening." Clearly these items suggest that the person is attempting to deal with the unpleasant event by reframing it in a more positive way.

We first wondered if grateful individuals used positive reframing when interpreting the results from our study of autobiographical memories in grateful individuals (Watkins, Grimm, & Kolts, 2004). Recall that in this article we conducted two studies where we simply asked grateful and less grateful individuals to recall positive and negative memories from their life. Although grateful individuals showed a much stronger positive memory bias than their less grateful counterparts, most grateful people did recall some negative memories. What was interesting about these recollections is how they experienced them. Participants rated their memories for emotional impact both at the time of the event, and how recalling the event impacted them now. Gratitude was not correlated with ratings of emotional impact at the time that the unpleasant event occurred, suggesting that both grateful and less grateful individuals were recalling very similar negative events. What was notable however, is that grateful individuals showed more fading affect of negative memories than did their less grateful counterparts. In other words, the negative memories of grateful individuals were losing more of their unpleasant emotional impact. For us, the most straightforward interpretation of this result was that grateful individuals were using some form of positive reframing to view the event differently, and consequently the recollection of the event was less unpleasant for them.

More direct evidence for this theory was presented by Lambert, Graham, Fincham, and Stillman (2009). In two studies they investigated the relationship of trait gratitude to a *sense of coherence*. Following Antonovsky's (1993) model, a person who has a sense of coherence sees their life as comprehensible (the events of their life are predictable and can be explained), manageable (they believe that they have the personal resources needed to deal with the events of their life), and meaningful (they believe that the challenges of life are worthy of their time and effort). Not surprisingly, a sense of coherence has been found to be positively associated with a number of mental health outcomes. In Study 2 Lambert et al. investigated the ability of gratitude to prospectively predict sense of coherence across time. Indeed, Time 1 dispositional gratitude reliably predicted Time 2 sense

of coherence after controlling for baseline sense of coherence. Even more relevant to our discussion here however, was the fact that positive reframing fully mediated this relationship. Stated differently, the results of this study supported the idea that gratitude enhances a sense of coherence through positive reframing. Thus, grateful individuals may successfully use positive reframing or reinterpretation to decrease the unpleasant emotional impact of past events. This might be one way whereby grateful individuals are able to successfully cope with difficult events in their lives.

9.4.2 Taking Care of Business with Gratitude

Although the prospective studies conducted by Wood et al. (2008) and Lambert et al. (2009) offer more convincing support for the theory that gratitude promotes adaptive coping, these designs are still essentially correlational, and thus do not rule out third variable interpretations. To clearly demonstrate that grateful processing of difficult events actually causes effective coping, true experimental designs are needed. In a recent study, we hoped to speak to this issue with an experimental design, as well as investigate some of the more specific cognitive mechanisms that might be involved with how grateful processing promotes healthy coping with stressful events (Watkins, Cruz, Holben, & Kolts, 2008).

In designing this study, we reasoned that a principal way that aversive events continue to negatively impact individuals is through memory. Often, it is not so much the objective environmental consequences of a romantic rejection that impact one adversely, but rather the unpleasant emotional consequences of the memory of the event. In this regard we found that Beike's understanding of unpleasant open memories to be very helpful (Beike, Kleinknecht, & Wirth-Beaumont, 2004; Beike & Wirth-Beaumont, 2005). According to Beike, an open memory is a memory of an event that is "poorly understood and not yet behind you"—a memory with "unfinished business", whereas a closed memory is "well understood and behind you" and "a closed book" (Beike et al., 2004, p. 145). She has proposed (with some evidence) that open memories are more emotionally intense, contain more emotional detail, and are more intrusive precisely because they have unfinished psychological business associated with them. Perhaps an example will help to illustrate the notion of open memories. Recently I moved into a newer home that appears to be functioning quite well for me, but at present the water feature next to my entry is not working. All the other features of the house (heat, appliances, lights, sprinkler system, etc.), seem to be operating quite well, but the one feature of the house that continues to intrude into my consciousness is that my water feature doesn't work. Beike would argue that this is because there is unfinished business associated with this memory—i.e., it needs to be fixed. Similarly, the memory of missing keys or a missing credit card may continue to invade consciousness because there is some unfinished business associated with these memories (they need to be found). From Beike's perspective, the reason that memories of stressful events

continue to intrude into consciousness, that people tend to ruminate on them, and they produce negative affect, is because there are unresolved issues surrounding these events. We argued that that unpleasant open memories continue to haunt individuals because they do not cohere into their good life story (McAdams, 2001). People want to believe that ongoing life events are part of a meaningful story; a plot that has purpose working toward a good conclusion. When negative events do not fit into this plot line, there is unfinished psychological business associated with them, and thus they are more unpleasant and more intrusive. We reasoned that grateful processing may help bring closure to these unpleasant recollections. By finding good consequences of bad events that one can be grateful for, this may help the individual fit the negative event into their good life story, thereby bringing closure to the memory. In this study we sought to investigate this theory.

After carefully describing unpleasant open memories, we asked all of our participants to recall an unpleasant open memory, and then to describe it and judge it on several variables. Somewhat surprisingly, our participants did not report that recalling such a memory was too difficult. After this initial recollection, subjects were randomly assigned to one of three journaling conditions. In each journaling treatment participants wrote for 20 min on three consecutive days. In our control condition subjects wrote about their plans for the following day or the appearance of their shoes. In the emotion control condition participants wrote about all of the emotional and cognitive aspects of their open memory, following the emotional disclosure procedure of Pennebaker (e.g., 1997). In the critical experimental treatment, people were instructed to gratefully process their painful open memory. We asked them to write about the consequences of this event that they could now feel grateful for. The specific instructions of this condition were much more elaborate, and because of the potential implications of these treatment for well-being and clinical interventions, I will explain them in more detail in Chap. 13. We administered our outcome measures at pre- and post-treatment, as well as 1 week after treatment. As predicted, we found that individuals in our grateful processing treatment showed more memory closure, less unpleasant emotional impact from the recollection of the memory, and the memory was also found to be less intrusive than for the subjects in our two control groups. I was particularly encouraged by the result from our memory intrusiveness measure, because this was not simply a self-report assessment, rather it was a real time assessment of the intrusiveness of their open memories. Moreover, we found that the greatest differences between the groups occurred at the 1-week follow-up assessment. In other words, individuals continued to show gains from the gratitude treatment after the conclusion of the intervention. To my knowledge, this is the first experimental study to actually show how grateful processing might assist in coping with stressful events.

After publishing this study we went on to investigate some of the mechanisms of this effect (Uhder, Kononchuk, Sparrow, & Watkins, 2010; Watkins, Xiong, & Kolts, 2008). First, we found that those in the grateful processing journaling treatment had greater positive affect and less negative affect than those in our emotional control condition as a result of each journaling session. Thus, it is apparent that grateful

processing of painful memories is less aversive than the traditional emotional disclosure approach, and this may provide for a means of approach to the troubling memory that assists in processing the memory more completely. Our second finding was that memory closure at post-treatment was predictive of the positive emotional impact of recalling the memory at 1-week follow-up. My student Jens Uhder went on to transcribe the journaling samples and analyze them using the Linguistic Inquiry Word Count (LIWC) developed by Pennebaker. Indeed, those in the grateful treatment journaling group used more positive, causation, and insight words than individuals in the two control conditions. Path analyses suggested that the greatest improvement was shown by individuals who wrote about their open memory with positive insight and understanding. Interestingly, insight and causation words were not predictive of outcome unless they were combined with positive word usage. For me, these results suggest that it is not making any coherent story that contributes to successfully processing a painful memory, rather it is important that the story that is created from the troubling event is a coherent *positive* story. This supports our model that grateful processing helps individuals coherently fit difficult events into positive life story (not just any life story). Taken together, these results show that grateful processing of open memories appears to help people "take care of business" that is associated with troubling memories, and in this way gratitude might promote positive reappraisal and healthy coping.

9.5 Conclusions

In my review of the gratitude literature, one of the most salient features of grateful people is that they seem to be very good at coping with obstacles and difficult events. There may be several mechanisms that help explain these findings. First, the experience of positive emotions like gratitude when times are good may help build personal resources such as resilience that assist grateful individuals when times are bad. Second, research has shown that positive emotions such as gratitude help people recover from the deleterious consequences of negative affective states. Third, gratitude may assist people because it builds one's trust and confidence in the ability of others to help them during difficult times, and thus grateful people are more likely to make effective use of their social resources during stress. Finally, and most significantly, I have argued that gratitude promotes positive reappraisal or positive reframing of negative events. By helping people see the silver lining in painful situations—by helping people see the good in bad events—gratitude helps individuals make sense of bad events. Evidence supports the theory that gratitude helps people understand how even bad events can fit coherently into their good life story. Gratitude may help individuals see events in a different light, with a new perspective. As the epigraph from Marcel Proust affirms, "The real voyage of discovery consists not in seeing new landscapes, but in having new eyes." Although there is much more experimental work that needs be done to bolster our confidence

in this theory, the extant findings provide a fairly clear "yes" to the question posed in this chapter's title: Gratitude does appear to enhance coping, and this may be an important mechanism explaining how gratitude promotes well-being.

Let me conclude this chapter with a very personal illustration. A number of years ago I had the illusion that I might enjoy a career in academic administration. The money was very attractive to me (more attractive than I was willing to admit), and a number of people were telling me what a good job I was doing as Chair of the Psychology Department. But then something happened that completely derailed my plans. I lost the election for my second term as chair. I thought I had done a good job; I thought I had treated people fairly; I thought that I had executed the position with integrity. But there it was; most in my department thought that someone else could do a better job. I must admit, I was very hurt and disappointed in this defeat. But as I look back at that election, I now view it with gratitude as one of the high points in my life. Because I was not allowed to continue as chair, I was able to pursue what I really love about my profession—teaching and research. As chair I would never have been able to pursue the gratitude research that has been so fulfilling for me. And as a result of this I have met some of the most original and vibrant researchers in positive psychology. I have always loved conducting psychological research, but now I am involved in an area that I enjoy even more, and I feel as though my research has encountered a new renaissance. In my life story, it seems that all these benefits have emanated from something "bad" happening to me. Good things really can come from bad circumstances, and gratitude may help people to be able to see the good in the bad. In this sense, gratitude amplifies the good, even in bad events.

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Chapter 10
Does Gratitude Prevent Negative Affectivity?

> *Self-pity, a shabby historian, considers and remembers the past only to feed the injustice of the moment and to avoid doing anything about it.*
>
> –Eugene Peterson (1996, p. 102)

It is not uncommon to hear traditional psychopathologists accuse positive psychologists of encouraging researchers to completely ignore the negative emotions. Although I have never heard a positive psychologist say anything like this, I suppose the natural assumption is that by emphasizing a "positive psychology" we are asserting that positive emotions are good and negative emotions are bad. But not all is positive in life; bad things happen, and negative emotions are likely to ensue. Indeed, if one does not experience unpleasant emotions in unpleasant situations, they probably won't deal with those situations adaptively. As I often tell my positive psychology class, "In order to be happy you have to be willing to be sad; in order to flourish, you need to allow yourself to be anxious, afraid, and even angry once in a while." Simply focusing on positive emotions neglects a significant and important aspect of our emotional lives. Yes, psychology has been overly focused on the study of unpleasant emotions, disorder, and vice. But the answer to this imbalance is not to neglect negative affect.

To neglect the study of unpleasant emotions and negative affectivity is to overlook important health issues. For example, clinical depression still presents a major challenge and cost to society. It has been estimated that one out five individuals in the United States will suffer from a major depressive episode at some point in their life (Kessler & Wang, 2009), and there are significant health and economic costs associated with the disorder. Often depression impacts others such as the spouse and children of the depressed person (e.g., Joorman, Eugene, & Gotlib, 2008; Wade & Cairney, 2000), and it has been estimated that the annual salary-equivalent productivity losses due to depression is on the order of $36 billion in the United States alone (Kessler et al., 2006). The interesting observation for me

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is that although we have seen significant advances in the treatment of depression via medications, cognitive therapy, and interpersonal therapy, rates of depression and suicide only seem to be increasing. Moreover, relapse rates in clinical depression are still quite high. Is there something crucial that is missing in our treatments of depression? In this chapter I will argue that there is promising evidence to suggest that gratitude contravenes depression, and in that sense positive psychology has something important to offer negative psychology.

10.1 What Does Positive Psychology Have to Offer Negative Psychology?

A theme of this chapter is that positive psychology does indeed have something to offer negative psychology. More specifically I shall argue that encouraging gratitude should help intervene and prevent depressive episodes. Although I will approach this issue largely through the lens of the relationship of gratitude and depression, readers should be able to see important connections to other emotional disorders as well. As has been convincingly argued by Barlow and his associates (e.g., Barlow, Allen, & Choate, 2004; Moses & Barlow, 2006), unipolar mood disorders and anxiety disorders can best be seen as specific classifications of a more general category of the "*Negative Affective Syndrome*" (NAS). First, all of these disorders share two generalized vulnerability factors: a biological vulnerability reflected in neuroticism or negative affectivity, and a psychological vulnerability that is seen as a lack of a sense of controllability. Each disorder also has a more specific psychological vulnerability due to past learning, and some kind of maladaptive emotion regulation. Because these commonalities imply a unified treatment approach across the emotional disorders, information from this chapter should translate fairly easily to emotional disorders other than depression.

Another common characteristic of the disorders of the NAS is that they all seem to contain *vicious cycles*. Variously referred to as vicious circles, downward spirals, and positive feedback loops, these cycles all refer to a process whereby certain behaviors, cognitions, and emotions are self-perpetuating because the output of these circuits feeds back into the system so that the output becomes the input for the original circuit (Bateson, 1972). Thus, certain patterns of cognitive or emotional responding tend to feed on themselves, producing more problems downstream, which then result in downward spirals. Clinical depression contains many of these vicious cycles, and some examples should help to illustrate these spirals. One common consequence of depression is insomnia. Lack of sleep seems to cause several cognitive deficits such as difficulty concentrating. Hence, when a student is depressed they may have difficulty staying awake and concentrating during lectures, preventing them from properly encoding the information needed for testing. When the student does poorly on subsequent tests, this is likely to produce cognitions that enhance the likelihood of sustained depressed mood, which should then exacerbate their sleep problems. Another common problem associated with depression is

social difficulties. For example, individuals suffering from depression seem to be particularly focused on themselves in social situations. These social skills deficits are likely to produce rejection or at least a lack of acceptance from others, which is likely to propagate their depressed mood.

On the other hand, Fredrickson and colleagues have presented compelling arguments (e.g., Garland et al., 2010) along with some data (Cohn & Fredrickson, 2010; Cohn, Fredrickson, Brown, Michaels, & Conway, 2009; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Fredrickson & Joiner, 2002), supporting the theory that positive emotions actually produce *upward spirals*, or what I have called *cycles of virtue* (e.g., Watkins, 2004). Not only do positive emotions produce durable personal resources that can help people ward off depression, they argue that these upward spirals can directly counteract the downward spirals that seem to be so problematic in emotional disorders (Garland et al.). Thus, positive psychology may offer negative psychology some important considerations in how upward spirals can directly sabotage the downward spirals in the NAS. Later in the chapter I will show how upward cycles of gratitude should be able to disrupt the downward spirals common in depression.

Furthermore, there is now evidence to suggest that deficits in positive emotional responding should be an important consideration in the treatment of depression. Studies have shown that in recovered depressives, a lack of happiness is a better predictor of relapse than current depressive symptoms. For example, in one study we found that happiness levels prospectively predicted future depression after controlling for initial depression levels (Watkins, Pichinevskiy, Boetcher, & Uhder, 2010). This approach fits well with Davidson's approach to depression. Based on evidence on prefrontal asymmetry in depressed individuals, he argues that depression is better characterized as a deficit in approach than excess withdrawal (e.g., Davidson, Pizzagalli, & Nitschke, 2009). This approach also fits well with the taxonomy advocated by Watson and Clarke showing that the main characteristic that differentiates depression from the other emotional disorders is a lack of positive affect (Watson, Clarke, et al., 1995; Watson, Weber, et al., 1995).

Depression is often viewed as a cognitive disorder (Beck, 1972), and most cognitive theories of depression emphasize negative cognitions (e.g., Beck, Rush, Shaw, & Emery, 1979). There is evidence however, suggesting that deficits in positive cognition may be as important to the maintenance of depression as excess negative cognition. For example, several studies have found that deficits in *positive automatic cognition* are strongly associated with depression (e.g., Ingram, Kendall, Siegle, & Guarino, 1995; Ingram, Slater, Atkinson, & Scott, 1990; Ingram & Wisnicke, 1988; Lightsey, 1994). Often in this research, positive and negative automatic cognition are found to be orthogonal factors. Indeed, the frequency of positive and negative automatic cognition is not reliably correlated (Ingram & Wisnicke, 1988). This implies that the absence of negative cognition does not necessarily entail the presence of positive cognition, and this observation has important implications for cognitive treatments of depression. Furthermore, in tasks where subjects are asked to imagine expected events in the future, when compared to controls, depressed individuals have not shown an increased amount of imagined negative future events, but

they have been found to imagine fewer positive events (MacLeod & Byrne, 1996; MacLeod, Pankhania, Lee, & Mitchell, 1997; MacLeod et al., 1998). Memory bias in depression shows a similar pattern. Typically depressives do not show enhanced recall of negative memories, but they show a deficit in the retrieval of positive memories when compared to non-depressed controls (e.g., Watkins, Grimm, Whitney, & Brown, 2005; Watkins, Mathews, Williamson, & Fuller, 1992; Williams & Broadbent, 1986). A recent study comparing depressed, anxious, and control subjects perhaps best demonstrates this pattern (MacLeod et al., 1997). When asked to recall events from different time periods, depressed participants did not show enhanced recall of negative memories, but rather showed a deficit in the recollection of positive experiences. Indeed, anxious participants recalled a similar number of positive memories as did controls whereas depressed participants recalled much less (depressed participants recalled about 55 % of the positive memories that controls and anxious subjects recalled). With respect to negative memories however, depressed participants recalled almost exactly the same amount as did controls, and much less than anxious subjects. This pattern is quite consistent with what we have found in our lab (e.g., Watkins et al., 1992, 2005). Taken together, these studies suggest that building positive memory networks would be a useful intervention for depression.

To be sure, clinical depression must also be characterized as a problem with sustained negative affect as well as a deficit in positive affect (Gotlib & Joorman, 2010). But the evidence reviewed above suggests that treatments for depression should be encouraged not simply to emphasize the training of "non-negative thinking" (Fredrickson, 2000), they should also use interventions that actively encourage enhancing positive cognition. Although there is now promising evidence to suggest that positive psychology interventions may successfully improve depression symptoms (e.g., Seligman, Rashid, & Parks, 2006; Seligman, Steen, Park, & Peterson, 2005), my focus in this chapter is to show how grateful processing may specifically disrupt the downward spirals in depression.

10.2 The Relationship Between Gratitude and Depression

Although gratitude has been shown to have inverse relationships with a number of negative states and traits (see e.g., Watkins, Woodward, Stone, & Kolts, 2003), trait gratitude seems to most reliably predict a lack of depressive symptoms. We have found this repeatedly in our lab, where the correlations have ranged from −.34 and −.67 across a number of different populations and several depression measures (e.g., McComb, Watkins, & Kolts, 2005; Watkins & Ola, 2001; Watkins et al., 2003, 2005). This association is reliably stronger than the relationship between trait gratitude and anxiety symptoms, and the relationship holds after controlling for anxiety (McComb et al., 2005). Moreover, this relationship has now been demonstrated in a number of other labs, in different ages and populations (e.g., Krause, 2007, 2009; Li, Zhang, Li, Li, & Ye, 2012; Wood, Maltby, Gillett, Linley, & Joseph, 2008).

Although these studies support the idea that gratitude may prevent depression, we know that self-report instruments of depression are not adequate measures of the clinical syndrome. In another study we compared students who met DSM criteria for a unipolar depressive disorder to students who did not meet DSM-IV criteria and reported no significant history of clinical depression (Woodward, Moua, & Watkins, 1998). All of these students received a structured clinical interview to determine clinical depression status. Clinically depressed participants were found to be reliably less grateful as measured by the GRAT. We also looked at a group of students who were not currently depressed (BDI < 10), but reported a significant history of depression. These students were also found to have significantly lower GRAT scores than our non-depressed group. This result may be important because it supports the idea that the lack of gratitude may be a vulnerability factor for depression.

Although this might seem to be an impressive array of results, most of these studies used cross-sectional and correlational designs. Thus, although they support the theory that gratitude contravenes depression, these findings are equally supportive of a number of alternative explanations. The most obvious competing account would be that when individuals are depressed, they don't feel very grateful. Although our finding that non-depressed individuals with a history of depression also report lower trait gratitude seems to contradict this interpretation, prospective studies would more clearly elucidate the relationship of gratitude to depression. Fortunately, several studies have used prospective designs to evaluate this relationship. Using a group of stress vulnerable subjects (first year undergraduates), Wood et al. (2008) found that gratitude prospectively predicted lower depression after controlling for initial levels of depression. This finding was replicated in two separate studies. Because these studies are also important for understanding the mechanisms of the gratitude and depression relationship, I will discuss this paper in more detail later. Complimentary findings were revealed in Krause's (2009) study of an elderly population. He found that although financial difficulties predicted depression, grateful elders were protected from this effect. In other words, when financial difficulties arose, grateful elders were less likely to get depressed than their less grateful counterparts. Although these three studies provide stronger evidence for the theory that gratitude contravenes depression, more prospective studies using longer periods of time seem to be called for. Moreover, longitudinal studies are still essentially correlational in nature, and thus contain confounds that experimental designs usually control for. There are now several experimental studies that have shown that gratitude interventions reliably decrease depression symptoms, and because these studies relate to the cognitive mechanisms of the depression/gratitude relationship, I discuss these studies in more detail below.

Taken together, there is now strong research support for the unique relationship of gratitude to depression. Although more longitudinal and experimental work is needed, the findings to date show promising support for the theory that gratitude might decrease and even prevent depression. *How* does gratitude contravene depression?

10.3 How Does Gratitude Contravene Depression?

Although the relationship between gratitude and depression is fairly clear, research is lacking as to what mechanisms might explain this relationship. In this section I offer several possibilities that might help us understand how gratitude decreases and prevents depression, with the caveat that most of the following discussion is speculative. Many of the mechanisms that we will explore below are similar to those that I present for the "how" of the gratitude/happiness relationship, but here I will attempt to show how they may be specifically applied to the syndrome of unipolar depression. Again, it should be emphasized that there are likely to be few qualitative differences between the mood disorders and other emotional disorders, and thus my speculations should relate to disorders dominated by anxiety as well. A theme of this chapter is that gratitude treatments may prove to be important additions to standard cognitive therapy of depression. But if this is the case, it is important that we clearly understand *how* gratitude contravenes depression. By understanding the mechanisms that explain how gratitude decreases depression, this should provide specific direction for how mental health professionals can use gratitude treatments to treat their depressed clients.

10.3.1 Gratitude May Enhance the Enjoyment of Activities

At least since Lewinsohn's research, the lack of enjoyment of activities has been emphasized as an important maintenance mechanism in depression (Lewinsohn & Amenson, 1978; Lewinsohn & Graf, 1973; Lewinsohn, Sullivan, & Grosscup, 1980). In general, researchers have found that depressed individuals seem to enjoy their activities less so than their non-depressed counterparts, and hence they have lower activity levels—something akin to an extinction effect. As emphasized in Chap. 6, if gratitude amplifies the good in one's experience of pleasant events, this should counteract the tendency for depressed individuals to experience less joy in their day-to-day activities.

A recent study from my lab helps illustrate this possibility (Doty, Sparrow, Boetcher, & Watkins, 2010). In this study we asked dysphoric and non-depressed college students to recall "simple" and "spectacular" pleasures from their past in separate 3 min recall trials. Here we defined *simple pleasures* as "pleasurable events that are readily available to most people and could be experienced on a daily basis." *Spectacular pleasures* on the other hand, were "more uncommon experiences that you enjoy but cannot participate in on a daily basis such as a vacation or an expensive concert." As expected, we found a significant interaction such that although both groups recalled a similar number of spectacular pleasures, non-depressed individuals recalled significantly more simple pleasures. From our design it is difficult to tell if this is a memory bias or if non-depressed individuals actually participate more frequently in simple pleasures, and results from our recognition test

seemed to suggest that the free recall result is the consequence of both frequency of participation and retrieval bias. But for the purposes of our discussion here, our most important finding was that non-depressed participants reported more enjoyment in both simple and spectacular pleasures. Interestingly, we found this effect both for their recollection of their original enjoyment of the event, and their current enjoyment while thinking about the pleasant events. Supporting the amplification role of gratitude, we found that non-depressed participants reported more gratitude for these events, although there was a marginal interaction ($p = .07$) suggesting that the group difference in gratitude was larger for simple than for spectacular pleasures. Interestingly, while scores on the CES-D were associated with the pleasurable emotional impact of thinking about simple pleasures ($r = -.19$), when we controlled for gratitude for the events, this completely removed the association ($r = -.09$). Because controlling for present emotional impact did not eliminate the significant association of depression and gratitude for simple pleasures, this suggests that gratitude might provide some role in amplifying one's experience of pleasant events. Obviously, these results are quite preliminary and are fraught with alternative explanations, but if it is true that gratitude can amplify the good in the experience of the present even for depressed individuals, this has important treatment implications. Indeed, it would seem that single session experimental interventions with depressed individuals could fairly easily evaluate whether experiencing pleasurable activities with gratitude actually enhances their enjoyment of the experience.

10.3.2 Gratitude May Enhance the Awareness of Pleasant Events

As emphasized in our study of simple versus spectacular pleasures described above (Doty et al., 2010), depression may decrease one's awareness of pleasant events. Because we found an interaction such that the memory bias for simple versus spectacular pleasures by depression status was stronger for free recall than for recognition memory, this implies that our results were not simply the result of actual participation in the events. Rather, it seems that our non-depressed participants were actually more aware of the simple pleasures in their life than the depressed students. Gratitude might enhance our awareness of pleasant events in both attention and memory, and this could serve to counteract the apparent deficit in the awareness of the good in one's life that seems to be evident in depression.

There is some evidence of a maladaptive attention bias in depression, and gratefully processing events may serve to counteract this bias. Although there is some debate about this bias, it looks like the attention bias in depression is a more passive than an active bias. Whereas the attention bias found in the anxiety disorders appears to be an active scanning of the environment for threat, it does not appear that depressed individuals are actively looking for bad things in their world. Unpleasant information does not appear to automatically capture the attention of

those suffering from depression. Rather, the research in this area seems to indicate that once unpleasant information enters the depressives' sphere of awareness, they have trouble disengaging from this information (Gotlib & Joorman, 2010). Thus, the reason that unpleasant information seems to dominate the awareness of depressed individuals is not because they have been actively looking for bad things, but rather that they have trouble attending to more pleasant information once the unpleasant information enters their awareness. If grateful processing of pleasant events amplifies one's awareness of positive events, this would seem to counteract the tendency of depressed individuals to dwell on negative events. Research has yet to investigate attention biases in gratitude, but this would seem to be a fruitful avenue for investigation. Gratitude may involve the active seeking for the good in one's life, or it may create a tendency to dwell on positive information once this information has been captured by attention. It could be that both of these processes are at work in gratitude, but we must await future research for the answers to these questions.

The research seems to be clearer on the memory bias found in depression. Depressed individuals appear to have a negativistic memory bias (Gotlib & Joorman, 2010), but as emphasized earlier, the memory bias in depression appears to be more of a *lack of the positive memory bias*; a bias that is typically seen in non-depressed individuals (Watkins et al., 2005). Research in this area seems to suggest that the bias is more due to encoding than to retrieval processes (see Blaney, 1986, for a review). So the reason that depressed people have more difficulty recalling pleasant events is not so much that their current mood is differentially priming negative memories, it is more likely that their dysphoric mood did not encourage adequate encoding of positive events.

Several researchers have presented compelling theories showing how the easy accessibility of negative memories in depression serves to maintain this disorder (e.g. Teasdale, 1983; Teasdale & Dent, 1987). These models argue that depression increases the accessibility of negative memories. The recollection of these memories increases dysphoric mood directly, but through spreading activation they also activate more negative memories. The activation of these negative memory networks then lowers the individual's confidence in the success of mood-repair activities, and thus these pleasant events are avoided. If however, the memory bias in depression is better characterized by a lack of a positive memory bias, this changes our model somewhat. I submit that depression decreases the accessibility and enjoyment of positive memories, and this produces maladaptive downward spirals as seen in Fig. 10.1. This figure shows five putative paths whereby the decreased accessibility and enjoyment of pleasant events caused by dysphoric mood produces consequences that serve to maintain or exacerbate dysphoric mood. First, path A shows how decreased accessibility of pleasant memories should decrease judgments of life satisfaction and optimism, and this in turn should serve to maintain dysphoria. Research has found that recalling positive events increases life satisfaction, but if the events are too difficult to recall, this actually decreases satisfaction with life (Schwartz & Strack, 1999; Strack, Schwartz, & Gschneider, 1985). This is probably because of the availability heuristic; when something is difficult to recall we tend to assume that the event is infrequent. Thus, when positive events are difficult to recall

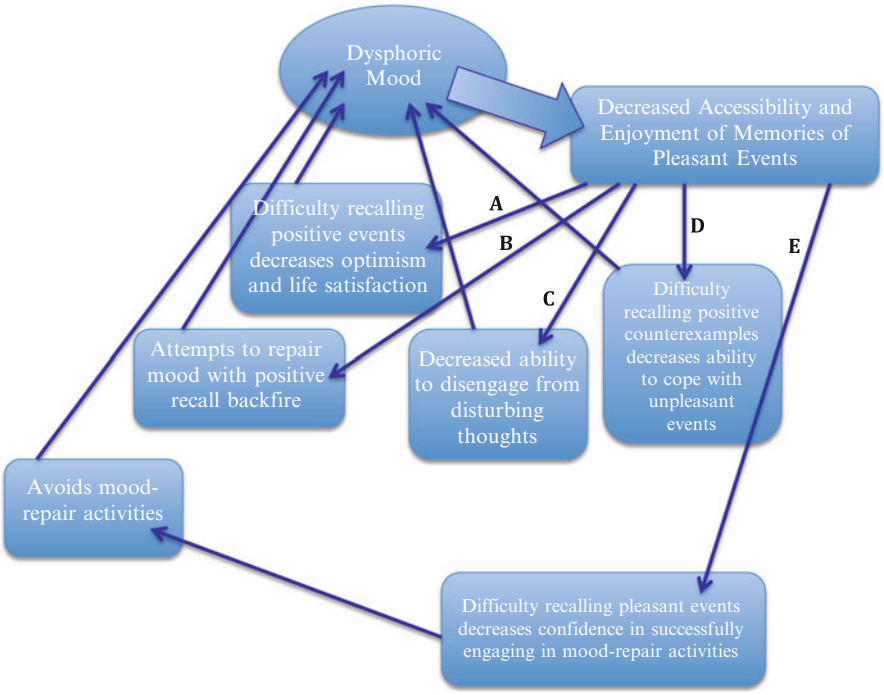

Fig. 10.1 Model of downward spirals created by dysphoric mood and decreased accessibility of positive memories

we assume that there is little good in our life, and therefore tend to report being more dissatisfied with life.

This also helps explain path B, where the dysphoric person attempts to recall positive events to repair their mood, but this backfires because either positive events are too difficult to remember, or when they do come to mind they do not produce the joy that one had anticipated. Several studies have demonstrated that recalling positive memories is an effective mood-repair technique, and non-depressed individuals often use this strategy to enhance their mood (Joorman & Siemer, 2004; Josephson, Singer, & Salovey, 1996; Lyubomirsky, Caldwell, & Nolen-Hoeksema, 1998; McFarland & Buehler, 1997; Rusting & DeHart, 2000). Although this seems to be an effective technique for most people, research suggests that this is not as effective for dysphoric individuals (Joorman & Siemer, 2004). While this might appear to be a discouraging finding for those of us who advocate building positive memory networks to ameliorate depression, I submit that positive memories are not as accessible for depressed people, hence positive memories are experienced as more difficult to recall. Thus, attempting to recall positive memories does not enhance the depressed person's mood. If however, depressed individuals had a ready reservoir of positive memories, this mood repair technique should be

effective. Furthermore, there is some evidence that recalling positive memories may not be as enjoyable for depressed individuals because these events are not viewed as part of their current status. In non-depressed individuals, when they recall positive events that are a part of their recent history this increases their reports of life satisfaction, but when they recall positive events from their distant past this actually decreases life satisfaction (Schwartz & Strack, 1999; Strack et al., 1985). Schwartz and Strack argue that the reason recent pleasant events enhance emotional well-being more than remote events is because people view these events as examples of their current status, but events from the distant past are used as standards of comparison, and unfortunately their current situation just doesn't measure up to those happy times from their past. As Andrew Gide observed, "Nothing is so fatal to happiness than the remembrance of happiness." Thus, when depressed individuals recall happy times form their past this could make them feel worse because they compare their current situation to these rosy periods from the past and it makes their current situation appear even worse. This is another reason why recalling positive events may actually backfire for dysphoric individuals.

In path C I propose that difficulty recalling pleasant events makes it difficult to disengage from disturbing thoughts, which then maintains and exacerbates dysphoria. Some studies have found that attempting to suppress an emotionally disturbing thought often results in a rebound effect (i.e., the thought increases in frequency following the suppression attempt). When an individual attempts to avoid a negative thought by concentrating on positive thoughts however, this seems to be an effective way of avoiding negative thoughts and this "concentration" strategy does not result in the rebound effect as thought suppression does (Wenzlaff & Bates, 2000). Thus, having a ready supply of positive thoughts and recollections should help individuals disengage from and avoid emotionally disturbing thoughts (Beevers, Wenzlaff, Hayes, & Scott, 1999), but if depressed individuals have more difficulty producing these thoughts because of decreased accessibility of positive memories, they should have more difficulty disengaging from distressing thoughts. Indeed, we have found that trait gratitude correlates negatively with the tendency to attempt to suppress disturbing thoughts (Neal, Watkins, & Kolts, 2005), suggesting that grateful people are better at disengaging from troubling thoughts. Moreover, in one study we found that recalling grateful memories several times a week over the course of a month decreased the accessibility of negative memories compared to an emotion recall control group (Watkins, Neal, & Thomas, 2004).

One effective way of coping with unpleasant events is to be able to recall positive counterexamples. For example, if a student receives a poor test grade, they should be able to cope more effectively with this event if they can recall past tests where they received better test scores. If however, a person's dysphoria makes it such that they have difficulty recalling positive counterexamples, they are not likely to cope well with the event, which will contribute to their dysphoria. This cycle is illustrated in pathway D. Path E also illustrates how difficulty recalling positive events may decrease one's coping ability. When one has trouble recalling positive mood enhancing experiences from their past, this should decrease their confidence in the success of these activities in the future. When one has little confidence that

a particular activity will enhance their mood, they are more likely to avoid these activities, which should serve to maintain their dysphoric mood. For example, if a depressed individual is invited to a party, an important aspect of their decision making process will be recalling similar events. If one cannot remember happy party experiences from their past, then they will be more likely to conclude that the upcoming party will be unsuccessful in cheering them up, and hence they will probably avoid the party. In sum, there a number of routes suggesting how the decreased accessibility of positive memories may serve to maintain dysphoric mood in depression.

If gratitude encourages a positive cognitive bias in attention and memory this might be an important ancillary intervention to include in depression treatment regimens. Is there any evidence that gratitude actually changes information processing patterns? Although I do not know of any studies that speak directly to this question, I believe that the evidence from Seligman et al. (2005) and our intervention study (Watkins et al., 2012) speak at least indirectly to this issue. Note that in both of these studies the gratitude treatment involved the recollection of positive events. While the Seligman et al. "*Three Blessings Treatment*" did not specifically ask for grateful processing, more than likely recalling three good things from the recent past involved gratitude, and in subsequent papers Seligman has identified this as essentially a gratitude treatment. In our study we attempted to make sure that grateful processing was involved. In addition to recalling three things that went well in the last 48 h, we also asked our participants to write about how these things made them feel grateful, thereby specifically encouraging grateful processing of positive memories. What is notable about both of these studies is that improvement in well-being continued after the treatment had concluded. This is in contrast with most clinical studies where the greatest treatment gains are found immediately after treatment. In most clinical treatment outcome studies, we see some decrease in well-being in follow-up assessments after the conclusion of treatment. Why does well-being continue to improve well after the "Three Blessings Treatment" has been concluded? I submit that this intervention actually involves cognitive training such that people are trained to look for positive things in their day, and then to process these events in a grateful manner. If this is the case, this should increase the accessibility of positive events (and indeed, this is what we found), which should counteract the vicious cycles shown in Fig. 10.1. In this sense I believe that gratitude researchers could follow the lead of cognitive bias modification research (e.g., MacLeod et al., 2002, for a review see Hertel & Mathews, 2011) to more specifically investigate the active cognitive mechanisms of gratitude interventions. This should provide us with specific leads for enhancing gratitude treatments.

10.3.3 Gratitude May Counteract Rumination

Rumination appears to be the cognitive characteristic that is most consistently seen in clinical depression (Mor & Winquist, 2002). Susan Nolen-Hoeksema has

been at the forefront of developing this construct, and she has defined rumination as: "a mode of responding to distress that involves repetitively and passively focusing on the possible causes and consequences of these symptoms" (Nolen-Hoeksema, Wisco, & Lyobomirsky, 2008, p. 400). Thus, rumination is a form of maladaptive self-focus that does not lead to active problem solving. Although depressed individuals report that they are ruminating in order to gain insight into their problems, Nolen-Hoeksema and colleagues argue convincingly that the non-conscious motive of rumination is to avoid aversive situations and the responsibility to take action in solving their problems.

Some evidence suggests that gratitude might counteract rumination. Indeed, we found that trait gratitude was negatively correlated with the tendency to ruminate (Neal et al., 2005). Of course, this simple correlation could be interpreted in many ways, including the possibility that rumination prevents gratitude. But it seems that while one is reflecting gratefully on benefits, this should prevent rumination. When one is reflecting on how others have been good to them, I propose that this amplifies the good in one's life, and this would seem to directly counteract a self-focus on why things are so bad in one's life. It would seem that this would be a fairly straightforward notion to test experimentally because there are experimental laboratory procedures for inducing both rumination and gratitude. A finding that reflecting gratefully on benefits does indeed prevent or distract one from rumination would be an important advance to understanding the cognitive mechanisms of gratitude that help contravene depression.

10.3.4 Gratitude May Encourage Positive Reappraisal

One reason depressed individuals might ruminate is because they have "unfinished business" associated with the various losses and failures that they are ruminating about. For example, if a depressed person has been the victim of a romantic rejection, they may continue to ruminate about this situation because although at one level they know there is no future with their former lover, at another level they continue to hope that they can get back together. I submit that gratefully processing this rejection (focusing on the consequences of this event that one may now be grateful for) should help take care of the emotional business associated with this painful memory of rejection. Indeed, as I reviewed in some detail in Chap. 9, we found that gratefully processing a troubling memory brought more closure, less negative affect, and less intrusiveness to the memory (Watkins, Cruz, Holben, & Kolts, 2008). It is important to note in this context that our real time intrusiveness measure was positively correlated with the tendency to ruminate, supporting the idea that these two processes are related. Stated differently, the reason people probably ruminate about a negative event is because there is unfinished business associated with the situation. If gratitude helps bring closure to these painful memories, this should result in decreased rumination about the situation. It is important to note that our study used college students who in general were not depressed, but our

design could easily be applied to depressed individuals, and I predict that our grateful reappraisal treatment will be at least as effective for these individuals as it was for our non-depressed subjects. In short, gratitude should help foster positive reappraisal in depression. Because sustained negative affect—particularly in response to stressors—is a central characteristic of clinical depression (Gotlib & Joorman, 2010), one way that gratitude might contravene depression is through encouraging positive reappraisal of unpleasant events.

10.3.5 Gratitude Enhances Relationships

As reviewed in Chap. 8, a number of studies have now supported the theory that gratitude enhances social well-being. Research has shown that gratitude is clearly a prosocial emotion, and given the well known social deficits that have been documented in depression (Barnett & Gotlib, 1988), gratitude interventions have the potential of providing significant social advantages to depressed individuals. Thus, it seems reasonable to propose that grateful people might be less vulnerable to depression because of the social benefits that gratitude offers.

Five social deficits have been consistently identified in depression: (1) problems in interpersonal problem solving, (2) depressed individuals have been found to take longer to respond to the verbalizations of others, (3) their verbalizations are more likely to be inappropriately timed, (4) they maintain less eye contact, and (5) their speech is more self-focused and negatively toned (for a review, see Gotlib & Hammen, 1992). Of these five deficits, it can be argued that point 5 is foundational; when one is negatively self-focused they are likely to have problems with interpersonal problem solving, appropriate verbalizations, and eye contact. I submit that the social deficit that gratitude should most directly counteract is with negative self-preoccupation. Gratitude is inherently an other-focused emotion. Furthermore, gratitude is by definition focused on positive aspects of one's life. Thus, grateful processing should directly counteract the negativity and self-focus that is often found in depression. Research regarding the social benefits of gratitude shows clearly that grateful people are well liked, gratitude engenders future social rewards, and gratitude helps "find and bind" in relationships (Algoe, 2012; see Chap. 8 of this volume). Taken together, both theoretical and empirical work suggests that gratitude should contravene depression because the social benefits of gratitude should directly counteract the social deficits often seen in depression.

Is there any evidence that gratitude decreases depression by providing specific social benefits? Indeed, in two longitudinal cross-lagged studies, Wood et al. (2008) found their data supported a model whereby gratitude predicted increased perceived social support, which in turn led to lower levels of depression. Although experimental studies using gratitude interventions with depressed subjects would provide more definitive results, these two studies powerfully suggest that gratitude may prevent depression because it garners social support.

10.3.6 Summarizing How Gratitude Contravenes Depression: Egosystem Versus Ecosystem

To this point we have seen that gratitude may contravene depression by enhancing the enjoyment of pleasant events, by enhancing the awareness of pleasant events, by increasing the accessibility of positive memories, by counteracting rumination, by encouraging grateful reappraisal of negative events, and by enhancing one's relationships. It could be argued that rumination is at the core of all of these deficits, because this maladaptive self-preoccupation could decrease enjoyment of events, decrease the awareness and encoding of positive information, decrease the likelihood of grateful reappraisal, and produce social deficits. Thus, in that gratitude can counteract this self-preoccupation, it should also contravene depression. In this context I have found that Jennifer Crocker's theory of motivational orientations in one's interactions with others is very helpful for understanding how gratitude might provide particular benefits for intervening with depression (Crocker, 2008, 2011; Crocker & Canevello, 2011). She has argued that when dealing with others we typically are in one of two mind sets or motivational orientations: *egosystem* or *ecosystem*. According to Crocker, when the egosystem dominates one is focused on the self, and when in this motivational orientation one's own needs and wants are psychologically amplified. Crocker contends that the egosystem is typically activated when one is convinced that their needs will not be met by cooperating with others, hence one must "look out for number one", so to speak. Thus, when the egosystem is activated people "try to meet their needs and achieve their goals by influencing how other people view them. They focus on proving themselves, demonstrating their desired qualities, validating their worth, and establishing their deservingness" (Crocker, 2011, p. 260). Clearly, when one is ruminating the egosystem is activated.

On the other hand, when the ecosystem motivational orientation is activated the individual's concerns transcend themselves: "Like a camera lens zooming out from them, in the ecosystem people focus on what they care about beyond their own needs and desires" (Crocker, 2011, p. 261). In contrast to the egosystem, the ecosystem mindset is activated when one is confident that their needs can be met by collaborating with others in pursuing a greater good for the whole ecosystem.

In depression, it would appear that the egosystem dominates, and I submit that when this motivational orientation is activated rumination is likely to ensue. The depressed person feels that others have not been supportive, that others are not concerned with their well-being, and thus the motivational orientation of the depressed person is likely to be very focused on their own needs and desires, which fosters the maladaptive self-preoccupation of rumination. In this context it is important to recognize that these mindsets are better viewed as states than traits. It is not that depressed people need be consistently egocentric, rather, Crocker argues that one can move in and out of these two different motivational orientations. Thus, if it is indeed true that the rumination that is central to depression is activated by the egosystem, then interventions that move a person from egosystem to ecosystem

should be very beneficial. What strikes me about gratitude interventions is that they should do just that. In gratitude exercises one is directed to focus on the good that others have done for them. Thus, gratitude is inherently other-focused, and consistent focus on the benefits that others provide for us should give us more confidence that indeed we can trust and collaborate with others to meet our needs. Thus, gratitude should specifically move a person from the egosystem to the ecosystem, and this might be the most parsimonious explanation for how gratitude contravenes depression.

10.4 Conclusion: How Gratitude Moves Us from Self-Focus to Other-Focus

If gratitude amplifies the good in one's awareness, then this should counteract individuals dwelling on the bad in their life. In this chapter we have seen that one of the central characteristics of depression—and other emotional disorders as well—seems to be maladaptive self-preoccupation. This is a self-awareness that is best characterized by rumination, a cognitive pattern of responding to unpleasant events where the individual repetitively reviews why things seem to be so bad, and the fundamental motivation for this rumination seems to be to build up evidence that they have been unfairly treated and that there is nothing that they can do to remedy their situation. In many ways, rumination can be characterized as self-pity. As emphasized by spiritual writer Eugene Peterson in the epigraph, "Self-pity . . . considers and remembers the past only to feed the injustice of the moment and to avoid doing anything about it" (1996, p. 102). Peterson goes on to say: "The self meditating on the self is in a room without air, without oxygen. Left there long enough, breathing its own gases, it sickens" (p. 103). In a real sense, this quote effectively captures the damaging aspects of the rumination that is found in depression. Gratitude however, should provide a radical antidote to this mindset. When individuals focus on the good that others have done for them, this amplifies the good in their life, creates greater confidence that they can trust others to accomplish their goals, and thus redirects their focus from their own needs and wants to the greater good beyond themselves. In this sense, gratitude should be able to break people out of the stagnant air found in the enclosed room of the self, and it should free them to pursue the fresh air of the wider world (the ecosystem) in active engagement with others. Thus, gratitude may provide the positive other-focused orientation that can counteract the damaging thinking patterns that seem to create depression.

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Chapter 11
How Does Gratitude Develop?

Gratitude is a fruit of great cultivation.

–Samuel Johnson

As the epigraph by Johnson illustrates, the metaphor of cultivation is often used when authors write about the development of gratitude. Cultivation is obviously an agricultural term, and the metaphor compares the development of gratitude to the farmer's production of a fruitful harvest. Just as a farmer must spend much time and effort planting, watering, feeding, and caring for her crop before she can expect a successful harvest, so too the cultivation of gratitude as a virtue requires time and effort. In this chapter I will attempt to explain what little we know about the development of gratitude. I will first describe the cognitive soil that is necessary for gratitude to grow. Then, I will show how gratitude in children produces attractive fruit, just as it does for adults. Indeed, gratitude appears to be as good for children as it is for adults. We will then explore several requirements that are likely to be important if gratitude is to grow. First, I will discuss how secure attachment may be important to the development of gratitude, and then I will speculate on the impact of various life events in the development of gratitude. Finally we will explore how parenting styles and emotion training may contribute to the growth of gratitude in children. If gratitude is a critical aspect of the good life for adults, it is important to understand how this virtue is cultivated, and in this chapter I will attempt to explain this process.

11.1 How Cognitive Development Cultivates Gratitude

As children develop cognitively, gratitude appears to become more differentiated. Although there is scant research that has investigated how cognitive development impacts the experience of gratitude, a few studies are quite informative. One of the

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earliest studies on gratitude investigated the development of gratitude in children (Baumgarten-Tramer, 1938). Baumgarten-Tramer simply asked children aged 7–14 two simple questions: "What is your greatest wish?" followed by, "What would you do for the person who granted you this wish?" The second question was presumed to probe gratitude responses. She categorized several kinds of gratitude responses, including what she called "verbal" gratitude (some kind of verbal response indicating thanks), "concrete" gratitude (where the children attempt to repay the benefactors kindness, but do so with a return favor that would be a benefit to them, but not necessarily to their giver), and "connective" gratitude (where the return favor would be of benefit to the benefactor and is given to enhance the relationship with the benefactor). More recently Freitas, Pieta, and Tudge (2011) replicated her findings. They found that with increasing age, concrete gratitude decreased while both verbal and connective gratitude responses increased. The authors interpreted their findings as suggesting that with age children develop an increasingly sophisticated understanding of their social world. There are several problems with these studies that should be highlighted however. First, the nature of the first question ("What is your greatest wish?") does not require that the benefit they wish for is something that must be provided by a benefactor. Thus the responses to the second question may be somewhat forced, and may not be all that relevant to gratitude as it is found in the real world. For example, if a child's greatest wish is "a new sports car", more than likely they are not thinking of a specific benefactor that is providing this benefit to them. Thus, the benefit wished for may not be an interpersonal benefit, bringing into question the relevance of the gratitude response. Moreover, the second question ("What would you do for the person who granted you the wish?"), assumes that the child would respond with some kind of recompense. Third, we cannot be clear whether the children were responding out of gratitude or indebtedness, and as we have seen from previous chapters, this is an important distinction. These problems notwithstanding, because of the dearth of information in this area, the findings are still informative.

The findings of Gordon, Musher-Eizenman, Holub, and Dalrymple (2004) seem to converge with these results. In an archival study that analyzed the content of children's essays about what they were grateful for, they found that compared to younger children (aged 4 through 8), social themes were more prevalent in the older children's essays (aged 9 through 12). Curiously though, material possessions were also mentioned more frequently in the essays of the older children. Taken together, these studies suggest that the gratitude evidenced in older children seems to be more socially sophisticated than that found in younger children.

Primarily based on the research of Sandra Graham (Graham, 1988; Graham & Weiner, 1986; Weiner & Graham, 1989), developmental researchers have concluded that the cognitive ability for children to experience "adult gratitude" crystalizes around age seven (e.g., Emmons & Shelton, 2002; Froh, Miller, & Snyder, 2007). The theory surmises that it is at this point that children are able to have an understanding of the mental state (or "*Theory of Mind*") of their benefactor, and thus they are able to experience "appropriate" gratitude at this age. Stated differently, it is at this age where children develop the ability to accurately empathize with

the intentionality of their givers; they are able to understand whether or not their benefactor is giving to them intentionally to benefit their well-being. In her study, Graham compared the gratitude responses of three different age groups (5–6, 7–8, and 10–11 year olds) to two scenarios. In both vignettes a child ("Tim") who is new to a school is chosen by the baseball team captain to be on the team—something he is described as desiring. In one condition the captain chooses Tim because he wants to be kind to someone who is new in school, in the other condition he chose Tim because the team rules required him to do so. For the primary dependent variable the children were asked how grateful Tim would be to the team captain. Graham's results are shown in Fig. 11.1. Clearly, as age increased the impact of the intentionality of the benefit on gratitude increased. Note the pattern of the results however: with increasing age gratitude decreased in the condition where the team captain provided the benefit because he was following team rules, but gratitude does not really increase with age in the intentional benefit condition ("controlled by the benefactor"). Thus, when the team captain was motivated to provide the benefit because of external rules, gratitude decreased with age. But when the benefit was provided because the captain was internally motivated to benefit the recipient, gratitude remained relatively constant with age. Moreover, Graham found that as age increased reciprocal responses were increasingly mediated by gratitude. In other words, reciprocation was much more likely to be motivated by gratitude in the older children than the younger children. As Graham concludes (1988, p. 86), "This means that with increasing age, more of the relationship between what we think and the way we intend to behave can be explained by how we feel." This is consistent with the evidence reviewed earlier suggesting that as children grow older there is increasing differentiation of the emotion of gratitude.

As stated earlier, the accepted interpretation of these results is that around age seven children understand the mindset of the giver, and thus when the benefit is intentionally given they report more gratitude than when the benefit is provided with motivations that are not specific to the beneficiary. This would appear to be the straightforward interpretation of Fig. 11.1. But examine Fig. 11.2. This figure shows the children's ratings of the intentionality of the giver, essentially asking the question of whether the benefit was controlled by the team captain. Note that the cognitive manipulation was quite successful across all ages. Although the older children seem to understand this somewhat better than the younger children, essentially children at all age levels understood that when the team captain chose Tim out of kindness for Tim, he was in control of the benefit, but when he chose him because of team rules he was not in control of the benefit. This raises some challenges to the simple cognitive development interpretation. As Fig. 11.2 shows, younger children clearly understood the mindset of the giver, and yet this did not appear to impact their gratitude. It appears to be something about the understanding of the motivation of the giver as it is related to gratitude that is developing, rather than simply the development of an understanding of the mindset of the giver. As yet, to my knowledge this specific mechanism has yet to be investigated. Why is intentionality important to the grateful response of older children, but even when

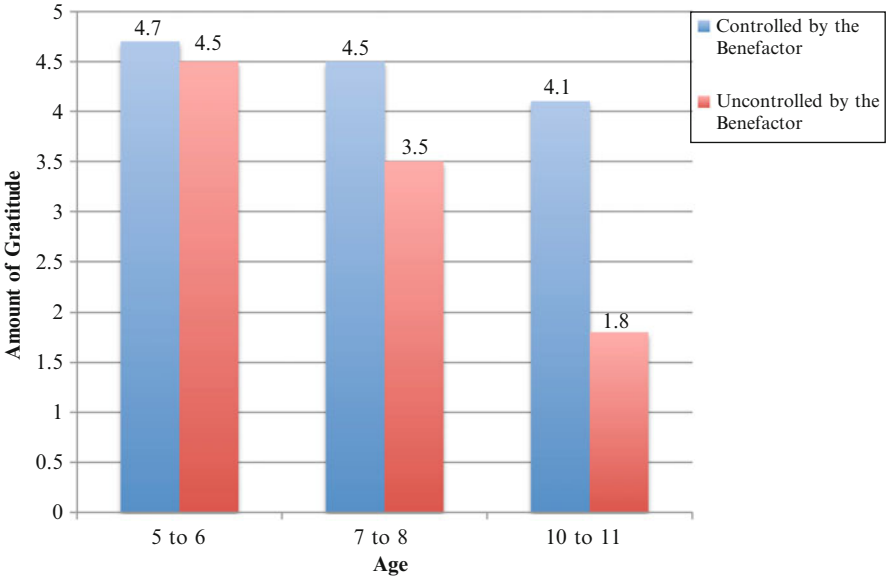

Fig. 11.1 Gratitude by age and intentionality

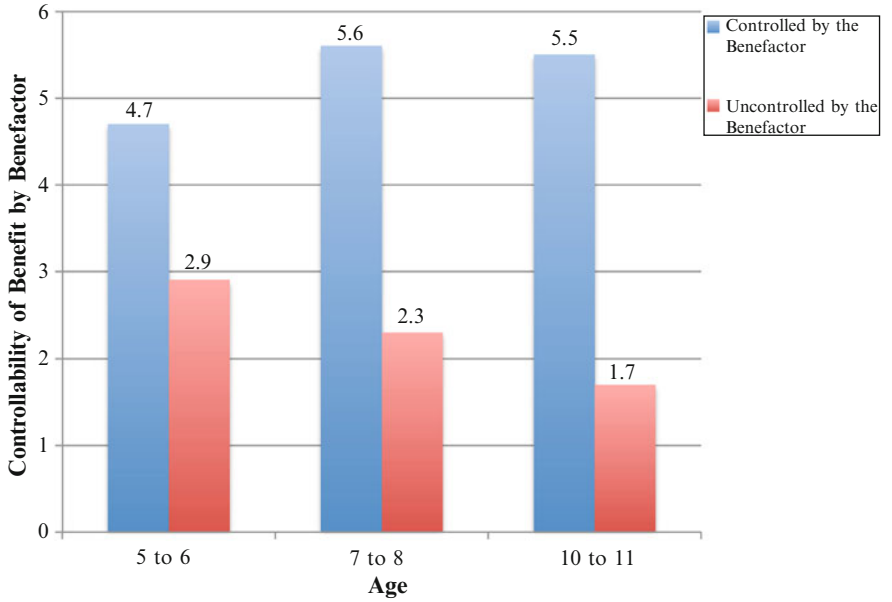

Fig. 11.2 Benefactor controllability by age and intentionality

younger children understand that the benefit was intentionally provided to them, this doesn't seem to matter to the gratitude of younger children?

One interpretation of this pattern of results is that with increasing age gratitude becomes more differentiated from other positive emotions. Perhaps in younger children all positive emotions are understood in the same way, and so even with different appraisals, younger children respond with similar gratitude because they are reporting their gratitude much in the same way as they would report simple joy or happiness. Although Graham (1988) included an "irrelevant" emotion in addition to gratitude in her study ("scared"), if she would have included some other positive emotions—including outcome-dependent positive affects such as happiness and joy—this would have provided data that speak to this emotion differentiation interpretation. Future studies could easily replicate Graham's study, but include outcome-dependent emotions in addition to gratitude. Thus, it may be that the pattern that emerges is not so much one of cognitive development, but of *emotional development*. I think that Graham and Weiner (1986, p. 171) summarize this pattern of data well: "Not only does affective life become richer and more differentiated with development, it also begins to play a more central role as a guide to social behavior."

With further research other patterns of the emotional development of gratitude are likely to emerge. Furthermore, developmental patterns of gratitude are likely to show trends and trajectories that extend into adult development. Indeed, some work has shown how gratitude in late adolescence appears to support generativity in middle adulthood (Peterson & Stewart, 1996). Also, consider that recent work has shown that the meaning of happiness changes throughout adult development (Mogilner, Kamvar, & Aaker, 2011). For younger adults, happiness is more likely to be associated with excitement, but older adults are more likely to experience emotions of peace and tranquility with happiness. It would not be surprising if future research finds that gratitude shows similar trends.

As Graham and Weiner (1986) point out, individual differences in the development of gratitude are likely to be an important consideration. We have seen that with increasing age we see increasing differentiation and social sophistication in gratitude, but surely this process varies considerably between individuals. For some this process may occur fairly quickly, for others much more slowly, for others, we may see little or no development in the differentiation of gratitude. A recent study showed the importance of how individual differences impact the development of gratitude (Nelson et al., 2012). In this study, emotion and mental state knowledge were measured in 263 children at ages 3 and 4, and then their knowledge of gratitude was assessed at age 5. The model that best explained the data suggested that emotion knowledge at age 3 promoted mental state knowledge at age 4, which then predicted their understanding of gratitude at age 5. Interestingly, this challenges the view that the development of the understanding of mental states must precede emotion knowledge. Stated differently, those children who had a better understanding of emotions at age 3, had a better understanding of mental states at age 4, which appeared to support an advanced understanding of gratitude at age 5. For me, two important implications arise from this study. First, this study demonstrates the importance of

considering individual differences in the development of gratitude. Perhaps more importantly however, the second implication is that it would seem that emotion and mental state knowledge may be taught, and thus the training of accurate emotion and mental state knowledge in young children may be important for the later development of gratitude. But this begs the question as to whether the development of gratitude is indeed a good thing for children. We will now explore this issue.

11.2 Is Gratitude Good for Children?

It is important to avoid the assumption that just because gratitude is good for adults, it is good for children as well. Fortunately, several studies have now investigated the importance of gratitude for the well-being of children. In a nutshell, the results indicate that gratitude seems to be as good for children as it is for adults. Several cross-sectional studies have shown moderate to strong correlations of gratitude with various well-being measures in youth aged 10 through 19. Chen and Kee (2008) found that dispositional gratitude predicted team and life satisfaction in Taiwanese athletes aged 15–18. Moreover, they found that gratitude was negatively associated with "athlete burnout." Froh, Yurkewicz, and Kashdan (2009) found that gratitude was positively correlated with a number of life satisfaction domains (indeed, all domains that were assessed), in early adolescents aged 11–13. Moreover, gratitude also predicted contentment, positive affect, and optimism. Interestingly, gender moderated the relationship between gratitude and perceived family support. Boys seemed to gain more social benefits from gratitude in this realm than did girls. This finding is notable because some have proposed that women gain more from gratitude than men. In adolescents aged 16–18, Proctor, Linley, and Maltby (2010) found that gratitude was positively associated with a number of well-being variables. Indeed only self-esteem was more strongly associated with life satisfaction than gratitude (.61 vs. .60). In a multi-study paper of the psychometrics of gratitude measures in 10–19 year olds, Froh, Fan, Emmons, Bono, Huebner, and Watkins (2011) found that trait gratitude was positively associated with life satisfaction and positive affect. They also found that dispositional gratitude was negatively associated with negative affect and depression symptoms. For the most part, these associations were fairly constant across the six age groups that were assessed. More evidence from Jeff Froh's lab has shown that gratitude was positively associated with life satisfaction and social integration, and higher gratitude predicted lower envy and depression (Froh, Emmons, Card, Bono, & Wilson, 2011). Notably, they found that gratitude also predicted higher grade point average. Taken together, these studies show that gratitude is moderately to strongly correlated with a number of well-being measures in youth aged 9 through 19, and these associations do not appear to be markedly different from those found in adults.

Although the studies reviewed to this point present a significant amount of evidence supporting the theory that gratitude enhances well-being in children, all of the studies described above were cross-sectional, and thus a number of other interpretations of these correlations are equally plausible. Several studies have

used longitudinal designs to evaluate the impact of gratitude on the well-being of children. Froh, Bono, and Emmons (2010) measured gratitude along with other variables at three points over a 6-month period in early adolescents. They found that baseline gratitude predicted well-being 3 months and 6 months later. More importantly, their results provided important suggestions for *how* gratitude enhances well-being in early adolescents. They found that baseline gratitude predicted increased life satisfaction 6 months later (Time 3), and that social integration at Time 2 mediated this relationship. In other words, it appeared that one important reason that gratitude enhances life satisfaction is that it assists in the process of social integration for adolescents. Moreover, they found evidence of a reciprocal relationship between gratitude and social integration, whereby gratitude enhances social integration, but social integration promotes gratitude as well. Thus, these authors identified an upward spiral that may be important when considering the well-being of early adolescents.

An even more rigorous longitudinal study was recently reported by Bono, Froh, and Emmons (2012). Bono and colleagues evaluated the impact of gratitude on well-being over a 4-year period. In this study they assessed over 700 students aged 10–14. When compared to less grateful students, Bono et al. found that the most grateful students showed increased sense of meaning in life, increased life satisfaction, increased happiness and hope, and decreased negative affect and depression over the 4 years. I view this as an important study not only for the understanding of gratitude in youth, but also more generally for understanding the impact of gratitude on well-being. Indeed, this study provides strong support for the proposition that gratitude matters in the process of successful development.

Three treatment outcome studies have lent additional support for the theory that gratitude is good for children. Froh, Kashdan, Ozimkowski, & Miller (2009) found that youth low in positive affect showed significant increases in well-being following a counting blessing gratitude intervention, when compared to a control condition. Moreover, in a quasi-experimental study that randomly assigned classrooms to different treatment conditions, Froh, Sefick, and Emmons (2008) showed that their gratitude intervention resulted in enhanced optimism and life satisfaction, and decreased negative affect when compared to a control condition. Interestingly, the gratitude condition also seemed to produce enhanced satisfaction with school as well. In a third study, which I will describe in more detail later, Froh and colleagues (in press) found that a gratitude training program improved well-being compared to a control condition. In sum, although more experimental treatment studies are needed, the evidence seems to strongly support the notion that gratitude is just as good for children as it is for adults.

11.3 How Secure Attachment Cultivates Gratitude

> Evidence is accumulating that human beings of all ages are happiest and able to deploy their talents to best advantage when they are confident that, standing behind them, there are one or more trusted persons who will come to their aid should difficulties arise.
>
> –Bowlby (1979, p. 103).

This quote succinctly captures Bowbly's theory of attachment (Bowlby, 1969, 1973, 1979, 1980, 1988), and how important he felt secure attachment is to healthy development. Although a thorough review of attachment theory is beyond the scope of this book, a brief overview will make clear the theoretical basis for the proposition that secure attachment is important to the positive and adaptive experience of gratitude, as well as to the development of dispositional gratitude. Bowbly argued that humans have evolved an attachment behavioral system that when activated motivates people to seek out significant others in order to attain a subjective sense of protection and/or security. When this sense of subjective security is attained, this terminates the activation of the attachment system. Undoubtedly influenced by his mentor Melanie Klein (1957), Bowlby proposed that early interactions with a child's primary caregiver influenced the development of working mental models of others, which results in specific *attachment styles*. According to Bowlby, these attachment styles will impact the individual throughout their life. If the child's caregiver is available and consistently sensitive to the child's needs, the child will develop a positive view of both themselves and others, or a more abiding sense of attachment security. When a child is securely attached, Bowbly argued that this results in stable trust of others, belief in the good will of others, and in essence being loved and accepted by others. If however, the child's caregiver is not consistently available, and responds to their needs in an inconsistent manner, then other attachment styles develop because attachment security has not been attained. Some individuals develop an *anxious/ambivalent attachment style* where the attachment system is chronically activated. Because these individuals are not confident that others will meet their needs, they seem to be chronically seeking out others and their acceptance. These individuals have a positive or ambivalent view of others, but tend to have a more negative view of themselves. Others however, develop an *avoidant attachment style* because they have lost hope that others can meet their needs. In these individuals the attachment behavioral system is chronically deactivated, and thus they tend to avoid others. These individuals tend to have a negative view of themselves and a negative view of others. Further theorizing in this area has led to the concept of *dismissive attachment*, those individuals who have a positive view of themselves but a negative view of others.

Several researchers have argued that a secure attachment style may contribute to the experience and development of gratitude. If an individual is confident in the good will of others and is able to trust others to meet their needs, this should enhance several of the "*recognitions of gratitude*" that we explored in Chap. 3. Although I believe that secure attachment should enhance the recognition of the gift, and the recognition of the goodness of the gift, I propose that it most strongly enhances the recognition of the goodness of the giver. When one can trust that others are genuinely concerned for their well-being and can fulfill important needs, they should be much more likely to infer the goodness of the giver in the context of a benefit. For example, if an individual provides a benefit to a beneficiary such as helping them move, a securely attached individual will naturally assume that the benefactor has provided this benefit because they genuinely want to help them. Thus, a securely attached individual should be more likely to infer the "goodness" of the motivations

of the giver, and because they are confident that others can help meet their goals, they should also be much more likely to gladly accept the help of others, thus leading to authentic gratitude.

On the other hand, if an individual has an anxious attachment style, they should be less likely to trust the goodness of the giver. Returning to our example, a person who is insecurely attached should be more likely to infer ulterior motives for a giver's assistance in their move. They may wonder what their benefactor is trying to get from them or what return favor their benefactor might require of them. Thus, the anxiously attached person may be more likely to experience contaminated gratitude—gratitude that is accompanied by indebtedness and even suspicion.

Several studies have evaluated the importance of secure attachment with self-report measures in adult populations. In one study (Lystad, Watkins, & Sizemore, 2005), we administered the Experiences in Close Relationships scale (ECR; Brennan, Clark, & Shaver, 1998), along with the GRAT-R (Thomas & Watkins, 2003; Watkins, Woodward, Stone, & Kolts, 2003) to college students. We divided students into the four attachment styles (secure, anxious, avoidant, dismissing) based on their scores on the ECR. As predicted, we found that securely attached individuals reported the most trait gratitude, whereas avoidant individuals reported the least. The component of dispositional gratitude that appeared to be strongest in securely attached individuals was their *sense of abundance*. Our dimensional analysis was consistent with this categorical analysis; both avoidant attachment ($r = -.45$) and anxious attachment ($r = -.33$) were significantly and negatively correlated with trait gratitude. This evidence supports the theory that secure attachment is important to the development of gratitude.

The work of Mikulincer and colleagues is largely consistent with ours'. In several studies they found that avoidant attachment as measured by the ECR was negatively associated with trait gratitude (Mikulincer, Shaver, & Slav, 2006). Somewhat inconsistent with our results however, was the finding that anxious attachment was not reliably associated with trait gratitude. Why did we find an inverse association between anxious attachment and gratitude whereas Mikulincer et al. did not? I believe that it may have something to do with the measures of trait gratitude that were used, and the nature of grateful experiences that anxiously attached individuals tend to have. Mikulincer et al. (2006) used the GQ-6 to measure dispositional gratitude whereas we used our GRAT-R. The GQ-6 is a relatively short and straightforward instrument that simply asks subjects about the frequency and depth of their grateful experiences. As such, the nature of gratitude is largely left to the subjects to define. Our measure however (the GRAT-R), attempts to measure the foundational traits that are typical of people who experience gratitude frequently (for more detail on these measures, see Chap. 2). In this context, it is important to highlight that the facet of gratitude that carried the day in our study was *sense of abundance*. Indeed, the facets of *simple appreciation* and *social appreciation* were not correlated with anxious attachment at all, a finding more consistent with that of Mikulincer et al. In our study only the sense of abundance factor of gratitude was reliably correlated with anxious attachment. It may be that the sense of abundance factor of trait gratitude more closely measures the positive and uncontaminated

experience of gratitude, whereas the other facets of the GRAT and the GQ-6 include aspects of gratitude that may be contaminated by other experiences such as indebtedness, guilt, feelings of being unworthy, etc. More evidence from the Mikulincer et al. studies elucidates this possibility. Along with the ECR and the GQ-6, they also administered the Grateful Experiences Scale. This is a 29-item measure that taps a person's subjective experience of gratitude. Respondents are asked to recall a recent experience of gratitude, and then are asked a number of questions about their subjective experience of this event. Indeed, they found that the subjective experience of individuals who were high in anxious attachment was somewhat conflicted. Although these individuals did report experiencing happiness/love and generosity in the grateful event they recalled, they were also more likely to report experiencing narcissistic threats, feelings of inferiority, and feelings of obligation (i.e., indebtedness). Thus, the experience of people who are anxiously attached in grateful situations tends to be quite mixed and even conflicted.

Because of these results, Mikulincer and colleagues wondered whether secure attachment might moderate the association of gratitude with prosocial behavior (Mikulincer & Shaver, 2009). If gratitude in anxiously attached people is associated with mixed and even conflicted affects, then anxiously attached individuals might not be free to engage their *caregiving behavioral system* in response to gratitude. Indeed, in two studies they found evidence for this notion. In the first study they found that those high in anxious or avoidant attachment were less likely to help following a counting blessings exercise. It is important to note that generally speaking their gratitude manipulation was effective: those in the gratitude condition were more likely to help than those in the control condition, but being high in anxious or avoidant attachment seemed to inhibit their prosocial behavior. In a second study the authors experimentally manipulated attachment security by having one group write about a close relationship where they felt secure, and the control group wrote about a student they did not know well. After a gratitude manipulation, they found that those in the secure attachment condition were more likely to respond to the gratitude induction with prosocial behavior. It is important to point out in these studies that although the authors seem to assume that they were inducing gratitude, they did not actually measure grateful affect in response to the manipulation, and thus we can only be sure that they were inducing a grateful situation, but not gratitude per se. I would submit—along with their previous studies and our work as well—that secure attachment, both as a chronic disposition and as temporally primed, prompted pure uncontaminated experiences of gratitude, which then led to increased prosocial behavior.

Taken together, initial evidence suggests that the development of secure attachment may be important to the development of gratitude. Although the initial studies are encouraging in this regard, they have many limitations and there is much work to do in this area if we are to gain confidence in this theory. Most notably, all of the studies reviewed above were conducted with adults, and longitudinal studies that actually involve observing the attachment behavior of children would seem to be called for. In addition, attachment styles were measured with self-report, and this may also have its drawbacks. It is also important to bring out that it is altogether

possible that gratitude promotes secure attachment. Might gratitude exercises be effective in enhancing positive working models of others that in turn assist in the development of secure attachment? This seems to be a reasonable proposition that could be tested in prospective and experimental studies. Nonetheless, theoretical and empirical work suggests that one of the more important factors in the development of gratitude is a secure attachment style.

11.4 Life Events in the Development of Gratitude

If the literature on life satisfaction gives us any clues, life events—whether tragic or terrific—are unlikely to show a strong contribution to gratitude. It is somewhat surprising however, that very few studies have attempted to investigate the contribution of objective life events to the development of gratitude. Indeed, I know of no studies that have looked at whether there are themes in the positive events of grateful people. A few studies have investigated the prevalence of negative events in grateful people. For example, one study found that college students with a history of childhood abuse reported lower gratitude (Moore, 2011). Even with negative events, however, there appears to be a dearth of research. There is reason to suspect that some negative events might even foster gratitude. We have suggested that events that bring into focus the limited resource of life might promote gratitude (Frias, Watkins, Webber, & Froh, 2011). Many benefits, such as life itself, tend to be taken for granted because the benefit is so constant and thus feels unlimited. But when events take place that remind us we are mortal and that life too will end some day, this should actually increase our appreciation and gratitude for the benefit of life. If this is true, then one might predict that life-threatening events might actually promote the development of gratitude. Indeed, in an experimental study that I described in Chap. 3, we found that having students focus on their death in a vivid and specific manner enhanced state gratitude (Frias et al., 2011). I suspect that there are many moderators to this effect—some individuals might become more grateful while others become bitter—but life threatening events appear to be a good candidate to investigate regarding life events that might be important in the development of gratitude.

Surely there are other benefits in addition to life that are constant, and thus tend to be taken for granted. If our theory is correct, then other negative events that remind the individual of forgotten benefits would likely promote gratitude as well. Many times social resources that provide consistent benefits (e.g., marriage) are taken for granted, but an event that reminds the individual of the benefit and that the benefit could be limited, should also enhance gratitude for the relationship. Future research investigating life events in the development of gratitude should provide important advancements for our understanding of gratitude, but as we pursue this line of research, it behooves us to remember that there are likely to be important moderators such as attachment styles.

11.5 Cultivating the Development of Gratitude

11.5.1 Parenting Styles that May Cultivate Gratitude

Some have argued that of all the virtues that contribute to happiness, gratitude may be the strength that is easiest to cultivate (e.g., Bono et al., 2012). Indeed, evidence does indicate that in contrast to negative affectivity, positive affectivity appears to be more the result of environmental than genetic forces. This implies that parents may have more influence in cultivating their children's positive affectivity than their negative affectivity. And because gratitude is a cognitively imbued emotion (in Weiner's terms, an attribution-dependent emotion), it is likely that the antecedent cognitions of gratitude are trainable, and thus the trait of gratitude may largely be the result of active cultivation. In other words, the *recognitions of gratitude* may be taught and learned. Thus, parents and primary caregivers may be important in the development of gratitude.

Three parenting practices have been identified as important for emotion development more generally, and thus may be important to the cultivation of gratitude as well. First, probably the most powerful factor in the development of emotional responses is found in parental *modeling of emotional responses* (e.g., Denham & Kochanoff, 2002). As it has often been said, learning important life lessons are more effectively "caught than taught" and this folk principle is likely to be particularly powerful in the cultivation of gratitude. When parents consistently display responses of gratitude to the benefits in their life (and perhaps particularly to the benefits that their children provide), this is likely to foster an environment of gratitude where thankfulness can flourish. Conversely, when parents do not display gratitude for benefits, this also provides a powerful model that should inhibit the development of the disposition of gratitude.

Second, parents are probably important to the emotional development of their children through *reinforcement and punishment of their children's emotional responses* (Denham & Kochanoff, 2002). When a parent responds warmly and actively to their child's response of gratitude, this should foster future grateful responses. If however, responses of gratitude are punished (e.g., "You shouldn't be grateful to your father, he's never been there for you"), or are ignored, future responses of gratitude should be less likely. The work of Gable (e.g., Gable, Gonzaga, & Strachman, 2006; Gable, Gosnell, Maisel, & Strachman, 2012) has shown how subtle these reinforcements or punishments can be (active, constructive responses appear to be most reinforcing), and future gratitude research that investigates the interaction of parents and children will need to attend to these subtleties.

The third parenting practice that is likely to be important to emotional development is *emotion teaching* or *emotion coaching* (Denham & Kochanoff, 2002; Denham, Mason, & Couchoud, 1995). This parenting approach involves actively teaching and training children's emotional responses. In order to accomplish this, parents must help their children attend to their emotions as well as provide them with effective emotion regulation skills. Researchers have also proposed that parents who are effective emotion coaches will be aware of their own emotions, and will

help their children label and explain their emotions. Although active and intentional emotion regulation is often emphasized in dealing with negative emotions, this emphasis has been neglected in the positive emotions, and it is likely to be an important factor in the cultivation of positive affects such as gratitude.

As one might surmise, there is virtually no research to date that has investigated the impact of parenting practices on the development of gratitude. Indeed, to my knowledge, only one study has focused on this issue. In a recent dissertation, Sara Seplowitz (2011), under the direction of Jeff Froh, investigated the influence of parental practices on the gratitude of adolescents. In this study, children aged 9–14 and their mothers filled out various measures. These inventories included assessments related to gratitude, empathy, and the three parental practices described above. Surprisingly, little support was found for the theory that these parental practices contributed to the cultivation of gratitude. While most hypothesized correlations were non-significant, the authors even found some significant associations that were opposite of predictions. For example, the gratitude self-reported by mothers was negatively correlated with the gratitude reported by their adolescent children ($r = -.37$). This study was limited by the fact that it relied on self-report, some of the correlations may have been limited by restricted range of the measures, and the gratitude measure showed strong negative skew (particularly in the mothers), but it is difficult to explain away significant associations that are the opposite of what one would expect. The authors believe that attachment security might be a strong moderator in these results (but unfortunately this was not measured), and for me, this seems to be a likely possibility. I also wonder whether emotionality may need to be controlled for in future research. Because gratitude was measured with the GQ, I am concerned that general emotionality might be confounding the results. In other words, it could be that mothers who reported high gratitude levels would also report frequent and intense emotional responses on other emotions as well—including negative affects. Whatever the case, clearly more research is called for in this area, and the theoretical basis for proposing that these parenting styles should contribute to the development of gratitude appears to be sound.

Because we have found that *emotional intelligence* is strongly correlated with dispositional gratitude (Watkins, Christensen, Lawrence, & Whitney, 2001), it seems reasonable that emotional intelligence training would be an important factor in the cultivation of gratitude. This likely overlaps to a strong degree with the parenting practices described earlier, but I wonder here whether the training of the *delay of gratification* might be particularly important to the development of gratitude. I propose that when a child can learn to wait for a reward this should foster increased appreciation for that benefit. Furthermore, I would argue that gratitude and the delay of gratification may act on each other in a reciprocal fashion, where the delay of gratification promotes gratitude, but being grateful for what one has enhances the likelihood of delaying gratification. If one is grateful for the benefits they have, perhaps this would allow them to have a greater ability to wait for future benefits, thus fostering delay of gratification. If this is the case, it could be that the delay of gratification and gratitude act in a *cycle of virtue* or *upward spiral* that is important in the cultivation of gratitude. Obviously, these speculations call for more research, and it seems to me that this area is ripe for productive research programs.

11.5.2 Training Children to Cultivate Gratitude

In discussion groups involving parenting issues it is not uncommon to hear parents complaining about the ingratitude of their children. My guess is that children are probably more grateful than we think they are, but it is an interesting empirical question as to whether children are less grateful (or more grateful) than they have been in the past. What this discussion highlights is that for the most part, parents value gratitude in their children. This then leads to the inevitable question: Can gratitude be trained in children? Fortunately Jeff Froh and colleagues have undertaken this important but time intensive research question (Froh et al., in press).

In two quasi-experimental studies, Froh and associates (in press) presented evidence that indeed, children can be trained to be more grateful, and this in turn positively impacts their well-being. In both daily and weekly intervention studies where children were trained in appraisals known to promote grateful responses (Wood, Maltby, Stewart, Linley, & Joseph, 2008), these researchers showed that gratitude appraisals can be enhanced through training, and this seems to impact their long-term well-being. Children aged 8 through 11 were trained in recognizing the benevolent intentions of benefactors, appreciating the cost to benefactors when providing them with a benefit, and recognizing the goodness of the gift, i.e., the value of the benefit. In Study 1, children in the benefit appraisal training program showed more grateful appraisals in the benefit vignette appraisal task, greater gratitude, more grateful responses, and greater teacher observed happiness than students in the control condition. In Study 2, children in the benefit appraisal training condition again showed enhanced grateful appraisals compared to controls. Moreover, students in the experimental condition showed greater gratitude and positive affect than those in the control treatment. Although life satisfaction did not show significant group differences in either study, often life satisfaction operates more as a trait variable and thus is sometimes somewhat insensitive to temporal change.

These studies have at least two important implications. First, they suggest that gratitude can indeed be taught. Note that Froh and colleagues (in press) focused on two of the *recognitions of gratitude*. Training in attributions relevant to the intentions of the benefactor is essentially training the children to *recognize the goodness of the giver* (see Chap. 3). By attributing benevolent motivations to the giver ("by providing this benefit my benefactor is really trying to enhance my well-being"), students are being trained to recognize the goodness of the giver. By training students in appraising the value of the benefit, Froh et al., were training children to *recognize the goodness of the gift*. As we saw in Chap. 3, these are two important "recognitions" that are important to the experience of gratitude, and thus it makes sense to train children in these appraisals if one wants to cultivate gratitude in them. I would like to suggest however, that a more comprehensive training program in gratitude could be instituted by training in the other two *recognitions of gratitude* as well. First, in order to experience gratitude one must *recognize the gift* itself. Obviously, if one does not recognize or appreciate that a benefit has occurred, gratitude will not ensue. As emphasized in Chap. 3, many benefits occur without

our awareness because of the emotional law of habituation, but training in regularly recognizing these benefits should enhance both state and trait gratitude. Here, I would recommend that researchers follow the lead of *cognitive bias modification* researchers (see Hertel & Mathews, 2011, for a review). Secondly, I propose that training in *recognizing the gratuitousness of the gift* will enhance trait gratitude. Recall from Chap. 3, when a benefit exceeds one's expectations one is much more likely to experience gratitude. Thus, many individuals do not experience gratitude for the benefits they receive because it is a benefit that they expect or feel entitled to. I propose therefore, that training in lowering one's expectations or entitlements regarding others should be an important facet of training programs in gratitude. The challenge here is how to train these recognitions.

These two studies by Froh and associates (in press) have what I believe to be very encouraging implications for the psychology of gratitude. Not only does this paper provide us with two additional studies showing that gratitude is indeed good for children, these studies also provide the added implication that the disposition of gratitude can be learned. Because of the importance of these studies to the issue of how gratitude interventions can be used to enhance well-being, I will discuss them in more detail in Chap. 13.

11.6 Conclusions About the Cultivation of Gratitude

In this chapter we have explored the question: "How does gratitude develop?" I have found that the image of farming has been "fruitful" for exploring this question, so I conclude this chapter where we began, with the metaphor of cultivation. Indeed, as emphasized by Samuel Johnson, "Gratitude is the fruit of great cultivation." But as I summarize the cultivation of gratitude, I want to emphasize that to date, there is really very little that we know about the agriculture of gratitude. Indeed, I submit that this is the area of gratitude research in need of most work. This is both because there is very little research in this area, and because it is important that we understand *how* gratitude is cultivated.

First, we have seen that the most fertile soil for the growth of gratitude appears to be secure attachment. Although life events that enhance one's appreciation for the value of life, and parenting practices that train children in emotional competence might enhance the growth of gratitude, I submit that the most important component of the soil that is likely to produce a healthy crop of gratitude is secure attachment. When a child is securely attached to his or her caregiver, they are then free to trust the benevolence of others, and this I would argue is the most important component for a healthy development of gratitude. It must be said however, that although the initial evidence regarding this proposition is promising, the evidence is predominantly self-report in nature and was conducted with early adults. Clearly, we must have more longitudinal research with children with non-self-report measures if we are to gain confidence in the importance of secure attachment for the cultivation of gratitude.

Perhaps one of the only things that I remember from my college botany class is that in order for a tree to be healthy it must grow in two ways: both out and up. Unless a tree gains girth or circumference as it develops, it cannot gain height in a healthy manner. Obviously, a tree that grows to a tall height with little girth is in danger of toppling in the slightest of winds. Perhaps we can see that cognitive development serves the growth of gratitude in much the same way that increasing growth in a tree's circumference supports its growth in height. Evidence suggests that certain aspects of cognitive development are required for gratitude to develop. There appears to be some development in children's understanding of the intentionality or mind of the giver that is important in the development of gratitude. But let me reemphasize that the research suggests that it is not merely the understanding of intentionality that is the critical variable here. Recall that children around 5 years old seem to understand that there is a difference between someone who gives them something because they want to benefit them, and someone who is giving because of the "rules of the game." They understand that the former is giving out of their own intentions, whereas the "giving" in the latter situation is caused by something external to the giver. But what seems to change is how this understanding produces gratitude. In younger children, this difference in intentionality doesn't seem to matter: they experience as much gratitude when the benefit is provided by the benevolence of the giver as when the benefit is provided because of some rules external to the giver. In children over seven however, this intentionality does seem to matter to their gratitude response. Clearly more research is called for to delineate the nuances of this developmental trend. The development of emotional differentiation may be as important as cognitive differentiation.

In conclusion, although we need much more research on the agriculture of gratitude, it appears that both secure attachment and the development of emotion knowledge are important to the cultivation of gratitude. The encouraging news is that it appears that what the farmer does to her crop matters. It makes a difference as to *how* one goes about cultivating the fruit of gratitude. The work of Jeff Froh and colleagues (in press) provides encouraging evidence that grateful thinking can be trained in children, and this is likely to produce long-term benefits. Indeed, gratitude requires much cultivation, but the initial evidence suggests that this cultivation will indeed produce a fruitful harvest. As Henry Ward Beecher concluded, "Gratitude is the fairest blossom which springs from the soul."

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Chapter 12
What Inhibits Gratitude?

A proud man is always looking down on things and people: and, of course, as long as you are looking down, you cannot see something that is above you.

–C. S. Lewis

Just as there are factors that enhance the cultivation of gratitude, there are also traits that may inhibit its growth. In the garden of gratitude, we have seen that there are certain qualities and lifestyles that provide the good soil and the healthy nurturance that is required for gratitude to grow. But just as bad soil, weeds, hungry animals, and bad weather may prevent a crop from growing well, there are also important factors that inhibit the growth of gratitude. In this chapter we will explore these factors. Although there seems to be much theorizing in this area, there is a dearth of data regarding the inhibitors of gratitude, and the data that we have is somewhat weak. Thus, much of what we will explore in this chapter is conjecture at this point in time. I will argue that there are at least four factors that are likely to inhibit gratitude: suspiciousness, indebtedness, envy and materialism, and narcissism. I will then attempt to show how narcissism or excessive ego-centrism may be at the root of all these traits. As Lewis remarks in the epigraph, when one is always looking down on people and things out of a sense of superiority, it is difficult to look up to appreciate the grand gifts in life.

12.1 How Suspiciousness Inhibits Gratitude

One of the weeds that may choke gratitude is a mindset of suspiciousness. Recall from Chap. 3 that the third recognition of gratitude is recognizing the goodness of the giver. A response of gratitude is unlikely unless one believes that the gift has been given out of benevolence, that the primary motive of the giver is to enhance

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the well-being of the beneficiary. When one suspects that a benefit has come out of ulterior motives, then gratitude is unlikely to occur. An example from our "Debt of Gratitude" study illustrates this principle and provides some evidence in support of the potential for suspiciousness to inhibit gratitude (Watkins, Scheer, Ovnicek, & Kolts, 2006). In our "high expectation" condition, respondents read a story about receiving a benefit (help moving in Study 1, providing missing lecture notes in Study 2), but the reader was informed that the benefactor expected an expression of gratitude and a similar return favor. Indeed, in Study 1 we told our participants that the benefactor was moving the following weekend. In this condition respondents reported that they would experience less gratitude than the other two conditions. One interpretation of this result is that respondents suspected that the gift was only provided so that the benefactor could get something back from the beneficiary. Thus, when one suspects the motives of others, this should inhibit gratitude. If one were chronically suspicious of others, I predict that they would be lower in trait gratitude. Although I know of no research that has directly investigated this idea, a first step would be to compare measures of suspiciousness and/or cynicism to trait gratitude questionnaires. If the inverse correlation is found, then prospective studies would be called for where measures of suspiciousness would be compared with future gratitude.

Why would an individual be chronically suspicious? Here I return to our discussion from the previous chapter. One of the most fertile soils for the cultivation of gratitude appears to be *secure attachment* (Bowlby, 1988). According to Bowlby and other attachment theorists, when a child's caregiver is sensitive and responsive to a child's needs, they develop a secure attachment, and this mental model of relationships abides and impacts how an individual relates to others into adulthood. When a child is securely attached, they develop a basic trust in others, such that they trust the benevolence of others. When one can trust the good intentions of others, they develop a style of recognizing the goodness of the giver, which promotes the development of gratitude. If however, the child is insecurely attached, then they tend to have ambivalent or negative mental models of others. One who is insecurely attached does not trust the intentions of others, and thus they should be more likely to be suspicious about whether a giver is actually intending to benefit them with a gift. I would suggest that even questioning the gift-giving motivations of others should inhibit gratitude. Of course, when one "knows" that the benefit is provided out of ulterior motives from the benefactor, gratitude should be very unlikely to ensue.

Again let me emphasize here that the relationship between suspiciousness and a lack of gratitude is largely speculation on my part, but it seems to me that this would be a valuable avenue of research. If indeed suspiciousness does inhibit dispositional gratitude, then it may be that this inhibitor of gratitude should be targeted in interventions designed to enhance gratitude. In our "Debt of Gratitude" study (Watkins et al., 2006), not only did we find that the possibility of suspecting the motives of the giver decreased gratitude, but this slightly increased indebtedness as well. Some research supports the idea that trait indebtedness inhibits gratitude, and now I turn to explore this possibility.

12.2 How Indebtedness Inhibits Gratitude

Consider the following illustration. Imagine that someone invites me over for dinner. I don't particularly enjoy the evening, but when I get home I feel that because these people invited me over, I should probably respond to them in kind. I invite them over, spend about what I think they spent on me, and hope there are no more dinners to be exchanged. But let's turn the tables a bit. Imagine that I really enjoyed the dinner. I have great conversation with my hosts, they intrigue me personally, they seem interested in me and seem to enjoy my company. In all, I have a wonderful evening. I get home and say to myself, "I've got to have them over soon." So later I invite them over. I spend a lot of time preparing the meal, but I enjoy the preparation because I am anticipating a great evening. When they come over for dinner we have a wonderful time. More than likely this is the beginning of an enjoyable friendship. Now, in a *moral bookkeeping* sense, these two examples are identical. In both cases, I returned their favor with a similar gift. But hopefully these examples clearly illustrate the difference between a benefit given out of indebtedness, and a gift of gratitude. Indeed, I believe that consistent feelings of indebtedness actually inhibit the development of gratitude.

Indebtedness has been defined as "a state of obligation to repay another" (Greenberg, 1980, p. 4). Greenberg is probably the scholar who has done the most empirical work on indebtedness, and it is clear that he views indebtedness in this sense as an emotional state. He states that it is a "psychological state" (p. 3) that follows from receiving a benefit from another, and goes on to argue that it has motivational properties, as does any emotional state. In this sense, indebtedness is associated with "arousal and discomfort" (p. 4) until the social imbalance that is created by the benefit is resolved. In other words, until one repays the debt (or engages in some other psychological reframing to resolve the sense of debt), we feel discomfort, and so are motivated to repay the benefit.

Although several social scientists have equated gratitude and indebtedness (e.g., Greenberg, 1980; Komter, 2004; Mauss, 1925/2002; Tesser, Gatewood, & Driver, 1968), not only will I argue that gratitude and indebtedness are distinct states, I submit that the tendency to respond to benefits with indebtedness actually inhibits responses of gratitude. After receiving a benefit, if one feels an "obligation to repay", and feels discomfort until they are able to do so, it seems reasonable to suppose that the individual will have difficulty enjoying the gift, and thus will have difficulty recognizing the goodness of the gift, which consequently should result in less gratitude. Hence, indebtedness should inhibit gratitude. Is there any evidence to support this theory?

Although the evidence is admittedly weak, in two studies we have found that trait gratitude is negatively correlated with trait indebtedness (Elster, Maleki, McLeod, & Watkins, 2005; Van Gelder, Ruge, Brown, & Watkins, 2007). The disposition or trait of indebtedness is the tendency to respond to interpersonal benefits with feelings of indebtedness. Greenberg developed an initial measure of trait indebtedness (Greenberg, Bar-Tal, Mowrey, & Steinberg, 1982), but because

the internal consistency was not exceptionally high, we revised this questionnaire into what turned out to be a more psychometrically sound instrument (Elster et al.). Examples from the *Indebtedness Scale-Revised* (*IS-R*) include: "Owing someone a favor makes me uncomfortable," "If someone does me a favor, I usually try to pay them back as soon as possible," "When I am able to repay a favor or gift, it brings me great relief," and "Often I have trouble enjoying gifts from others because I'm concerned about what I will give them in return." In both of our studies, we found small but significant negative associations between the IS-R and the GRAT-R (−.26 and −.19). Moreover, gratitude and indebtedness were related to our well-being measures in opposite directions (positively for gratitude, negatively for indebtedness). Although these relationships support the theory that indebtedness inhibits gratitude, the cross-sectional nature of the design makes this support fairly weak. Results from prospective and experimental designs would provide stronger support for this theory.

There is however, one interesting conundrum regarding our results. Although we have found that trait indebtedness and gratitude are inversely related, some research has found that the *states* of gratitude and indebtedness are positively correlated. Stated differently, although grateful people tend not to be characterized by indebtedness, when people report that they are feeling grateful, they also tend to report feeling somewhat indebted (Tesser et al., 1968; Watkins et al., 2006). Although the correlations between state gratitude and indebtedness are inconsistent and tend to be quite small (and even non-significant in females, see Uhder, Watkins, & Ovnicek, 2009) these results still need to be reconciled.

We have found that gratitude and indebtedness can be dissociated, showing that these are distinct states. Whereas increased perceived expectations from the giver decrease gratitude, they increase indebtedness. Moreover, gratitude and indebtedness appear to have distinct thought/action readiness modes (Watkins et al., 2006, see Chap. 2). Does this mean that there is no *debt of gratitude*? I submit that there is a sense of debt in gratitude, but it is very much unlike what we literally mean by the word debt (see Watkins et al.). In the literal sense of a debt the obligation is established by the lender (or benefactor). However, as we have seen, when a benefit is given with an expectation of return favors from the receiver, gratitude is less likely. Thus, I submit that in gratitude the "debt" is incurred, not by the giver, but by the receiver. In other words, the gift is provided from the benefactor without expectations of return, but the beneficiary infers the "debt" upon herself. Indeed, moral philosopher Roberts argues that in gratitude one gladly accepts the debt to someone who has acted on our behalf (Roberts, 1991a, 1991b, 2004). Thus, in responses of gratitude, one does not feel obliged to return the favor, rather one is intrinsically motivated to benefit their benefactor. If this is true, then when one is feeling grateful, they might also experience some "indebtedness", but it is not indebtedness in a literal sense, rather it is a self-incurred feeling of desiring to favor their benefactor. To summarize, some evidence suggests that the tendency to experience indebtedness in response to favors from others may inhibit gratitude, but the relationship between state indebtedness and gratitude needs to be explored further.

12.3 How Envy and Materialism Inhibit Gratitude

It is easy to see how envy and materialism are intimately related. Envy has been defined as the state of desiring something that someone else has, and materialism is placing an exceptionally high value on possessing wealth and material goods (Belk, 1985; Richins & Dawson, 1992). Obviously, individuals who put a high value possessing things should be much more likely to envy the possessions of others. Indeed, Belk even includes envy as an aspect of his conceptualization of materialism. A number of studies have now shown that both envy and materialism are negatively associated with gratitude (Kashdan & Breen, 2007; Lambert, Fincham, Stillman, & Dean, 2009; McCullough, Emmons, & Tsang, 2002; Polak & McCullough, 2006; Ruge, Van Gelder, Brown, Gibler, & Watkins, 2007; Thomas & Watkins, 2002). This relationship has been demonstrated with both the GQ-6 and the GRAT, and with several different scales of materialism. Thus, the inverse relationship between envy/materialism and gratitude appears to be quite robust, supporting the theory that envy and materialism could inhibit gratitude.

How might envy and materialism inhibit gratitude? As early as the work of Melanie Klein (1957), proposals have emphasized how envy could inhibit the development of gratitude. The logic seems to be fairly straightforward: if one is focusing on material possessions that one does not have (as is the case in envy and materialism), one is not focusing on or appreciating the blessings that they do possess, which would inhibit gratitude. At this point it is important to point out that the reverse may be true as well: if one focuses on (and is grateful for) their blessings, they would not be focusing on those things that they desire but do not yet have. Thus, the correlations that I cited above are just as strong evidence that gratitude inhibits materialism and envy. My suspicion is that both of these paths are at work; envy and materialism inhibit gratitude, but gratitude inhibits envy and materialism as well. Just as with the relationship between indebtedness and gratitude, prospective and experimental work is needed to investigate the question of whether envy and materialism inhibit gratitude. It would seem that these designs would be fairly straightforward, but to my knowledge, they have yet to be accomplished.

It strikes me that this is an area of research that could benefit from the information-processing paradigm. If attention is chronically biased toward material items that one longs to purchase, this should predict an attention bias away from goods and relationships that one might be grateful for. Thus, the priming of materialism or envy should result in the allocation of attention and memory away from those blessings that one could be grateful for. It seems to me that the modified emotional Stroop task or the dot probe attention allocation task could be used for investigating these ideas. It is probably important to point out that consumer oriented cultures encourage the allocation of attention to potential material purchases, which should increase envy and materialism and consequently decrease gratitude. Thus, although commercialism might keep the economic machine of a society humming, it may also inhibit gratitude that in turn should decrease well-being. Research that investigates how consumer oriented cultures discourage gratitude would be

very interesting in this regard. In sum, a number of studies have shown inverse correlations between envy/materialism and gratitude, and these relationships could be indicators of the fact that envy and materialism inhibit gratitude.

12.4 How Narcissism Inhibits Gratitude

From virtually the beginning of the recent wave of gratitude research gratitude scholars have suggested that narcissism and arrogance should inhibit gratitude (e.g., McCullough, Kilpatrick, Emmons, & Larson, 2001; McCullough & Tsang, 2004; McWilliams & Lependorf, 1990; Schimmel, 1997; Watkins et al., 2003). Given the frequency of this theorizing and the seemingly obvious connection between narcissism and ingratitude, it is somewhat surprising that very few studies have reported this relationship. Early in our research we investigated the relationship between narcissism and trait gratitude using Phares' Selfism Scale (Phares & Erksine, 1984). This measure is designed to assess "subclinical" narcissism, and indeed we found that this measure was moderately to strongly associated with the GRAT ($r = -.49$; Watkins et al., 2003). Because the Selfism Scale is not often used to tap narcissism, we conducted several follow up studies with the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), which is more commonly used in narcissism research. In several studies using this measure and the GRAT, we were unable to find any reliable associations between narcissism and gratitude. Relationships between the measures were not statistically significant, and at times we even found trivial positive correlations between gratitude and some of the subscales of the NPI. These results were somewhat disconcerting to us, but at an APA convention Julie Exline encouraged me to investigate the relationship while controlling for self-esteem. As every good narcissism researcher knows, self-esteem is positively correlated with narcissism as assessed by the NPI. Because there was good reason to suspect that gratitude is positively associated with self-esteem, it could be that the relationship between self-esteem and gratitude was suppressing the narcissism/gratitude association. Indeed, in several subsequent studies we found that gratitude was positively correlated with self-esteem, and when we controlled for self-esteem with partial correlations, the expected negative association between narcissism and gratitude emerged (McLeod, Maleki, Elster, & Watkins, 2005). These results seem to imply that it is only an unhealthy pride that inhibits gratitude. Again however, it is important to admit that these studies were cross-sectional and correlational, and thus prospective and experimental studies are needed to establish more firmly that narcissism does indeed inhibit gratitude. One experimental approach would be to induce unhealthy or hubristic pride, and then to evaluate the impact of this manipulation on gratitude for a benefit.

How might narcissism inhibit gratitude? In an engaging psychodynamic piece on "everyday narcissism", McWilliams and Lependorf (1990) explain why narcissists have difficulty saying "thanks." They argue that narcissists believe themselves to be "guiltless" and "needless", and it is the latter conviction that prevents gratitude.

When an individual feels grateful for the contribution of another, they are essentially admitting that another person has filled an important need in their life. Hence, the reason narcissists have difficulty experiencing and expressing gratitude is because gratitude is essentially an admission that others have filled a personal need. As Modell (1975) argues, those high in narcissism have an "illusion of self-sufficiency", and experiencing and expressing gratitude runs counter to this illusion.

Although this explanation makes some sense, I would like to propose that it is not so much that a narcissist believes that they have no needs that others can fill, only that their needs are "special" in some way, and because of their sense of superiority and uniqueness, they feel entitled to the provision of others to meet those needs. In other words, because they believe themselves to be superior to others, they expect and believe they are entitled to have others meet these needs. Thus the provision of benefits by others ceases to be a gift for narcissists, these favors are simply payments for what they believe they are due. In this way, those high in narcissism have trouble *recognizing the gratuitousness of the gift* (see Chap. 3). Because their expectations (entitlements) of others are so high, rarely does an interpersonal benefit outstrip their expectations, and so gratitude is rare. Clearly these are competing theories to some extent. Future research that informs on this issue would be helpful, not only in informing about inhibitors of gratitude, but also in providing direction for interventions that might counteract these factors that seem to prevent gratitude. So perhaps it is not so much that those high in narcissism believe that they are self-sufficient beings, as it is that they believe that their superiority entitles them to benefits and pleasures ("I deserve these benefits"), and thus all benefits are simply due payment for who they are. I think that Chesterton (1908/1986, p. 234) summarizes the difficulty that narcissists may have in enjoying life's benefits:

> Humility was largely meant as a restraint upon the arrogance and infinity of the appetite of man. He was always outstripping his mercies with his own newly invented needs. His very power of enjoyment destroyed half his joys. By asking for pleasure, he lost the chief pleasure; for the chief pleasure is surprise.

12.5 Conclusions About the Inhibitors of Gratitude

In this chapter I have argued that four factors are likely to inhibit the experience and development of gratitude. *Suspiciousness* is likely to inhibit gratitude because when one suspects the motives of the giver, they are unlikely to *recognize the goodness of the giver*, and hence gratitude is unlikely. Second, I have argued that the experience of *indebtedness* inhibits gratitude. When one receives a benefit from another, but primarily experiences a feeling of an obligation to repay the debt, this should inhibit their enjoyment of the benefit and thus should prevent experiencing gratitude. In this sense, indebtedness should inhibit the *recognition of the goodness of the gift*. Third, *envy* and *materialism* should inhibit gratitude because these traits will direct an individual's attention to material goods that they do not possess, rather than to benefits that they may be grateful for. Finally, I have argued that *narcissism*

prevents gratitude because it increases one's expectations/entitlements of others. Thus, benefits from others cease to be gifts because they are simply just payment for what they believe they are due. In this sense, narcissism actually prevents the *recognition of the gift* itself.

If future research confirms that these factors do indeed inhibit gratitude, the looming question is how these traits can be decreased. Given that these are likely to be traits, this would not be an easy task, but some discussion about potential interventions with these factors is called for. First, it is important to highlight again that all of the research that I have reviewed in this chapter is cross-sectional and correlational in nature. Thus, although the studies provide some support for the theory that suspiciousness, indebtedness, envy/materialism, and narcissism inhibit gratitude, they are equally supportive of the opposite theory: that gratitude inhibits suspiciousness, indebtedness, envy/materialism, and narcissism. My own belief is that these factors are related in a reciprocal fashion. For example, although narcissism probably inhibits gratitude, exercises of gratitude probably inhibit narcissism as well. Thus, the most obvious recommendation for counteracting these inhibitors of gratitude would be gratitude interventions. Future gratitude treatment studies should investigate this possibility.

But simply suggesting that gratitude should inhibit that which inhibits gratitude, is not likely to be a satisfactory solution. Undoubtedly, in some individuals these traits may be so strong that gratitude treatments are rendered ineffective. Thus, active interventions to counter these factors may be called for. A first obvious step would be education regarding these inhibitors. When an individual knows that their suspiciousness prevents gratitude, this is an important first step to overcoming suspiciousness. Understanding how a sense of indebtedness and envy/materialism inhibit gratitude responses should be helpful in initiating the pursuit to overcome these factors. Perhaps most importantly, understanding narcissism and its pervasiveness may be very important. For me, one of the destructive aspects of discussing "narcissists" is that it implies that some are narcissists and most of us are not. Thus, our discussion of narcissism is often one couched in a categorical model, whereas the research seems to suggest that narcissism is better viewed as a dimension. Thus, I submit that all of us suffer from narcissism in some way; all of us are subject to the *self-serving bias* and egocentrism. Knowledge about the pervasive self-serving bias and becoming aware of aspects of narcissism in our day-to-day lives is likely to be helpful in overcoming these gratitude barriers. As C.S. Lewis (1943/1996, p. 114) remarked, "If anyone would like to acquire humility, I can, I think, tell him the first step. The first step is to realize that one is proud. And a biggish step, too. At least, nothing whatever can be done before it. If you think you are not conceited, it means you are very conceited indeed."

Lewis's observation suggests that one of the most effective antidotes of narcissism and arrogance is likely to be the pursuit of *humility*. Indeed, I propose that one of the most effective interventions to overcome these inhibitors of gratitude is likely to be treatments designed to encourage humility. Here again I think the wisdom of Chesterton (1924/1989, p. 75) is valuable:

> It is not only true that the less a man thinks of himself, the more he thinks of his good luck and all the gifts of God. It is also true that he sees more of the things themselves when he sees more of their origin; for their origin is a part of them and indeed the most important part of them.

Here again however, the question that begs for an answer is "How does one pursue humility?" This is likely to be a dangerous enterprise because as most scholars have pointed out, humility is not characterized by a low view of one's self, but rather a kind of *self-forgetfulness* where one rarely thinks of themselves in comparison to others. Thus, focusing on one's own humility has the potential to be counterproductive. Although a discussion of humility treatments is beyond the scope of this chapter, I would like to suggest that a principal component of such an intervention would be on lowering one's expectations and sense of entitlement towards others. Here again, I rely on the thought of Chesterton (1905/1986, p. 69):

> The truth is, that all genuine appreciation rests on a certain mystery of humility and almost darkness. The man who said, "Blessed is he that expecteth nothing, for he shall not be disappointed," put the eulogy quite inadequately and even falsely. The truth is, "Blessed is he that expecteth nothing, for he shall be gloriously surprised." The man who expects nothing sees redder roses than common men can see, and greener grass, and a more startling sun. Blessed is he that expecteth nothing, for he shall posses the cities and the mountains; blessed is the meek, for he shall inherit the earth. Until we realize that things might not be, we cannot realize that things are. Until we see that darkness we cannot admire the light as a single and created thing. As soon as we have seen that darkness, all light is lightening, sudden, blinding, and divine . . . . It is one of the million wild jests of truth that we know nothing until we know nothing.

Thus, I submit that interventions focusing on decreasing one's expectations/entitlements of others should increase humility, decrease narcissism, and thus increase one's potential for gratitude and appreciation. One aspect of this intervention is likely to be training in recognizing one's entitlements, because often (if not usually) these expectations operate at a non-conscious level. To summarize, interventions that increase humility may help individuals overcome important barriers to gratitude.

In sum, we have seen in this chapter that four factors might inhibit gratitude: suspiciousness, indebtedness, envy/materialism, and narcissism. But I would like to conclude by proposing that the "master trait" that may fuel all of these inhibitors of gratitude is narcissism and arrogance. When one believes that they are truly better than others, one is much more likely to suspect the motives of givers. This is because if one believes they are exceptionally valuable and superior to others, one should be much more likely to suspect that when a benefit is provided to them it must be motivated by a desire to get something from them. Furthermore, when one believes that they are completely self-sufficient, then one should be much more likely to experience indebtedness in response to a benefit. This is because the narcissistic individual would be more concerned with simply "balancing the moral books" so that they would not be in anyone's debt. If one believes that they are actually superior to others, they probably also believe that they are more entitled to material goods than others, and thus will be focused on those goods and be envious of others

who possess them. Indeed, there is evidence that narcissism is positively associated with trait envy. Thus, it appears that the "master trait" that may inhibit gratitude is narcissism and arrogance. Here I conclude with the wise counsel of Henry Ward Beecher:

> Pride slays thanksgiving, but an humble mind is the soil out of which thanks naturally grow. A proud man is seldom a grateful man, for he never thinks he gets as much as he deserves.

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Chapter 13
How Can Gratitude Interventions Be Used to Enhance Well-Being?

Except where intolerably adverse circumstances interfere, praise almost seems to be inner health made audible.

–C.S. Lewis, *Reflections on the Psalms*, p. 94

O Lord, that lends me life,
Lend me a heart replete with thankfulness!

–William Shakespeare, *Henry VI*, Part II, Act I, scene 1.

In this book I have endeavored to show that gratitude is indeed important to the good life. I have attempted to demonstrate that experiencing and expressing gratitude is good for people, and is a factor important to flourishing. If gratitude amplifies the good in one's life, then it is important to understand how one's well-being can be enhanced through gratitude. In this chapter I will describe in detail the gratitude interventions that have been shown to enhance well-being. I will then proceed to describe treatments that have been developed to enhance dispositional gratitude. Finally, we will explore moderators that may impact the effectiveness of gratitude interventions. The aim of this chapter is to provide the reader with sufficient information that they can apply gratitude interventions, and develop research that should help us to improve these treatments.

13.1 Gratitude Interventions that Have Been Shown to Enhance Well-Being

In this section I shall provide very specific descriptions of gratitude interventions. Although many gratitude treatments have been advocated in popular literature, I will focus on those treatments that have some empirical support. Although the support behind these interventions varies somewhat, I will attempt to be forthright in the extent of support that each approach has garnered.

P.C. Watkins, *Gratitude and the Good Life: Toward a Psychology of Appreciation*, DOI 10.1007/978-94-007-7253-3_13,

13.1.1 Grateful Recounting

Gratitude interventions that have received the most empirical support seem to follow the theme of what I have referred to as "grateful recounting." These are gratitude exercises that entail listing of benefits in some fashion (also referred to as "gratitude lists", Wood, Froh, & Geraghty, 2010). Clearly, the gratitude treatment that has undergone most scrutiny is the "counting blessings" approach developed by Emmons and McCullough (2003). In this technique individuals are given these specific instructions (p. 379):

> There are many things in our lives, both large and small, that we might be grateful about. Think back over the past week and write down on the lines below up to five things in your life that you are grateful or thankful for.

This simple exercise has been shown to enhance well-being across several different populations and contexts. There are several aspects of these instructions that are worth highlighting. First, note that Emmons and McCullough have reminded the participant in a subtle way to take note of "small" as well as "large" blessings. I believe this is important. Grateful people take note of "simple pleasures" as well as large favors (Doty, Sparrow, Boetcher, & Watkins, 2010; Watkins, Woodward, Stone, & Kolts, 2003). "Small" favors occur much more frequently than large blessings, and because intensity is not as important to subjective well-being as the sheer number of positive affective experiences (Diener, Suh, Lucas, & Smith, 1999), it is important to remind participants that "small" favors are important to recount.

The number of blessings one is to "count" may be an issue as well. The instruction to recall "*up to* five things" may be important, because it does not *require* the participant to list five things. Requiring a minimum number of benefits to list may put some participants in the awkward position of listing "blessings" that they do not really perceive as blessings. Some have changed the instructions to suggest recounting six blessings (e.g., Geraghty, Wood, & Hyland, 2010a, 2010b), but there is reason to suspect that requiring people to recall too many blessings within a given session may actually work against the procedure. Lyubomirsky, Sheldon, and Schkade's finding (2005) reminds us that more is not necessarily better with regard to counting one's blessings. Asking a participant to recall too many blessings may actually encourage them to "count" things that they are not actually grateful for, and it may turn the exercise into more of a chore than a moment of joyful reflection. Anecdotally, in gratitude listing studies that I have conducted some participants told me that they became frustrated with having to recall too many blessings. Other subjects have simply resorted to "counting" the same five things over and over again (e.g., "husband, children, school").

In this context, it is also worth considering the *availability* or *ease of retrieval heuristic* (Tversky & Kahneman, 1973). This heuristic suggests that asking participants to recall too many blessings might actually lead to lowered satisfaction with life. For example, people tend to report that they are more assertive when asked to recall 6 incidents of assertiveness than when asked to recall 12 (Schwarz et al., 1991). This is because the participant experiences more retrieval effort when

recalling 12 than 6, and thus concludes that incidents of assertiveness are less frequent, which in turn leads to lower judgments of assertiveness. Presumably, if one were asked to recall 12 grateful incidents from the past week, this might lead to a similar frustration: participants find difficulty in recalling that many events and thus feel that blessings are infrequent in their life. On the other hand, one could argue that by recalling more grateful incidents they are enhancing the accessibility of more grateful memories, which might lead to greater subjective well-being. My guess is that allowing the person some flexibility in the number of blessings that they count will prove to be the best option, but this is certainly a question for future research to weigh in on. It would seem prudent for clinicians, coaches, and consumers to carefully consider the optimal length of gratitude lists.

The time of day at which one engages in gratitude listing exercises may be another important consideration. Most counting blessings interventions have instructed participants to complete their gratitude lists at the end of the day—presumably close to when one goes to sleep for the night. Because of the promise of health benefits of gratitude treatments, some have suggested that one mechanism that explains how gratitude interventions impact well-being is by improving sleep. Indeed, there is some evidence that counting blessing interventions do improve the quality of sleep, and they appear to do so by beneficially impacting pre-sleep cognitions (Wood, Joseph, Lloyd, & Atkins, 2009). More research might be directed toward this issue, but the evidence to date suggests that counting one's blessings in the evening might provide the most benefit. Although some questions have been raised regarding "control" groups in studies that have investigated the counting blessings intervention, there are now sufficient studies with adequate control groups to suggest that this treatment reliably enhances subjective well-being (see Chap. 4).

The "3-blessings" treatment developed by Seligman, Steen, Park, and Peterson (2005) also seems to fit well with the theme of grateful recounting. In this exercise participants are asked to list "three things that went well the previous day" (p. 416). Participants are also encouraged to write about why these things went well. In Seligman and colleagues' study, participants completed this exercise each day for 1 week. It may be argued that this is not explicitly a gratitude intervention, but in pilot studies we have found that most of the events that people list in this exercise are those for which they feel grateful. Although the initial impact of this intervention appears to be somewhat subtle, the long-term impact on well-being is impressive. Indeed, participants' emotional well-being continued to grow well after the intervention period had concluded.

We have modified this treatment to make it more explicitly a gratitude exercise, and we found that the gratitude component of this exercise appears to be crucial (Watkins et al., 2012). We changed our listing instructions slightly from those of Seligman and colleagues, primarily in that the time frame was the last two days ("In your mind, go over the past 48 h and recall three things that went well during this period of time"). After listing their three good things, participants were encouraged to "take some time to write about how this particular experience or event made you feel grateful." Our results were similar to that of Seligman et al. (2005). Not only did the gratitude 3-blessings treatment outperform the positive memory control and

memory placebo treatments, people who were in the gratitude treatment continued to show improvement well after the treatment phase. Why do the 3-blessings interventions show continued improvement after the active intervention? I propose that the gratitude 3-blessings treatment trains people to be more aware of the good things in their life, and it may also train individuals to process benefits in a grateful manner. Currently we are investigating how the 3-blessings treatment instantiates cognitive changes that support future well-being.

There is good reason to suspect that the "three good things in life" intervention might be particularly effective in the treatment of depression. Many individuals suffering from depression have trouble noticing and appreciating positive events in their life, and presumably this treatment would help correct this deficit. Indeed, both studies described above (Seligman et al., 2005; Watkins et al., 2012) found that this treatment decreased depression symptoms as well as enhancing happiness. Although these studies did not use clinically depressed subjects, these results would recommend that clinical trials with depression should be informative.

13.1.2 Grateful Reflection

Another theme of gratitude interventions has been grateful reflection or grateful contemplation (Wood et al., 2010). Because some research suggests that writing may actually invoke a mindset that interrupts the experience of positive affect when contemplating a benefit (Lyubomirsky, Sousa, & Dickerhoof, 2006; Watkins et al., 2003, Study 4), there may be some benefit to participants merely thinking about benefits or beneficiaries in their life. We found that simply reflecting on someone that one is grateful for (for a 5 min period) produced significant increases in positive affect, and this intervention appeared to have a greater impact than a listing treatment (compare Study 3 to Study 4). It is important to emphasize that this reflection exercise showed an immediate impact on emotional well-being, but to my knowledge gratitude reflection exercises have not yet been tested in long-term outcome studies. This could certainly be a target for future gratitude intervention research, and I would predict that an intervention of this kind would show long-term enhancement of emotional well-being in addition to the short-term benefit that has already been demonstrated. Furthermore, I propose that it may be useful to alternate grateful recounting with grateful refection exercises. If Lyubomirsky and colleagues are right in that positive psychology interventions are less vulnerable to hedonic adaptation (2005), then it seems to follow that varying the exercises somewhat should enhance their effectiveness. Indeed, she presented some evidence that counting your blessings twice a week was more effective in enhancing satisfaction with life than counting blessing every day (although Emmons & McCullough, 2003 seem to have a conflicting pattern of results—compare outcome of Study 1 to Study 2). Future research that more specifically and directly addresses these issues would be informative to the optimal application of gratitude exercises.

One issue to consider in exercises of grateful reflection is the so-called *George Bailey Effect* (Koo et al., 2008). This refers to the well-known Christmas movie where a distraught George Bailey (played by Jimmy Stewart) is shown by an angel what his town would have been like without him. This leads George Bailey to a new and profound appreciation for how good his life really is. Evidence from a series of studies suggested that counting blessings could encourage adaptation to benefits (Koo, Algoe, Wilson, & Gilbert, 2008), thereby lowering the emotional benefit that may be garnered from them. This study also found however, that one might contemplate blessings in a way that might undo adaptation. If one thinks about how a benefit was surprising or might never have happened (e.g., "I was so fortunate to have met my wife; it would have been so easy for me to have never made that first phone call to her"), then people tend to experience more positive impact from thinking about the benefit. I believe these findings inform us about how one might best reflect on one's blessings. The reflection needs to be done in a way that enhances appreciation, and by thinking about what one's life would be like without the blessing, this should increase appreciation and hence positive affect. In sum, exercises of grateful reflection have been shown to increase positive affect, and gratitude practitioners and researchers may want to consider how to integrate them with practices of grateful recounting.

13.1.3 Grateful Expression

A student in my lab once asked me, "What happens when a person consistently experiences gratitude, but never expresses or acts on it?" I believe that this is a poignant question. Most emotion theorists believe that emotions are adaptive because they prepare us for performing some adaptive behaviors, and if one consistently experiences gratitude without expressing it (both in word and deed), one wonders how adaptive gratitude would be. I have been concerned that this rather gnostic gratitude (a gratitude that is only experienced cognitively, but is never embodied in behavior) has been encouraged in the popular literature, and for me, gnostic gratitude does not present a full picture of gratitude. Fortunately, several studies have shown that expressions of gratitude also show large enhancements in well-being.

One of the most effective positive psychology interventions shown to boost emotional well-being has been the so-called "gratitude visit" (Seligman et al., 2005). In this treatment participants were to "write and then deliver a letter of gratitude in person to someone who had been especially kind to them but had never been properly thanked" (p. 416). The actual instructions used by Froh, Kashdan, Ozimkowski, & Miller (2009) might be particularly helpful for those interested in using this intervention:

> Most everyone enjoys thanks for a job well done or for a favor done for a friend, and most of us remember to say "thank you" to others. But sometimes our "thank-you" is said so casually or quickly that it is nearly meaningless. In this exercise, you will have the

> opportunity to express your gratitude in a very thoughtful manner. Think of the people—parents, friends, coaches, teammates, and so on—who have been especially kind to you but whom you have never properly thanked. Choose one person you could meet individually for a face-to-face meeting in the next week. Your task is to write a gratitude letter (a letter of thanks) to this individual and deliver it in person. The letter should be specific about what he or she did that affected your life. Make it sing!
>
> It is important that you meet him or her in person. Don't tell this person, however, about the purpose of this meeting. This exercise is much more fun when it is a surprise to the person you are thanking.

Because these instructions were specifically designed for adolescents, one would probably want to adapt them to be age appropriate for the user. In the Seligman et al. study (2005), the gratitude visit showed large increases in emotional well-being and significant decreases in depression symptoms, but by 6 months the well-being variables had returned to baseline. While this may appear to be a discouraging result, one can hardly expect that one "gratitude visit" would result in permanent increases in happiness. Expressing one's gratitude should not be a "one time" event; rather it should become part of the lifestyle of the grateful person. Presumably the gratitude visit would be a treatment that one could use on repeated occasions. Future research should identify if repeated expressions of gratitude such as those found in the gratitude visit continue to enhance well-being, and it would be useful to know the optimum frequency for these expressions.

Some studies have simply asked their participants to write a letter of gratitude to someone they were grateful for (e.g., Watkins et al., Study 4). While these treatments appear to be effective, for me, the gratitude visit is a more embodied gratitude expression, and thus is likely to show more beneficial results for well-being. Of course, one cannot always physically visit someone to express their gratitude, so letters of gratitude provide a more convenient expression of gratitude. Given the significant shifts in how individuals now communicate at a distance, we may now need to evaluate the effectiveness of email, voicemail, or texting expressions of gratitude. It seems to me that sometimes these electronic expressions provide a format so that the beneficiary can limit their involvement with their benefactor, and in that way I would propose that these expressions are less embodied gratitude expressions than actually writing a person, calling them, or visiting them. But again, the convenience of these electronic expressions recommends them, and future research should evaluate the kinds of gratitude expressions that prove to be most beneficial.

13.1.4 Grateful Reappraisal

An important aspect of living the good life is being able to successfully navigate the bad things that come one's way. To paraphrase a crass euphemism, "bad things happen"—one simply cannot avoid unpleasant events in their life, and some evidence suggests that avoiding those things (or at least avoiding them psychologically) is detrimental to one's mental health. Thus, if gratitude can

help one deal with aversive events in an adaptive manner (see Chap. 9), then these interventions should be added into a gratitude treatment regimen. Grateful people appear to be particularly good at reappraising negative events, and there is now evidence that grateful reappraisal helps individuals bring closure to painful memories, which decreases the negative affect and intrusiveness of these memories (Watkins, Cruz, Holben, & Kolts, 2008; see Chap. 9). To review, in this study we found that compared to the comparison condition, the gratitude journaling condition brought more closure to their painful open memory, decreased the negative emotion aroused by the memory, and decreased its intrusiveness. Following is a portion of our instructions that we used for the gratitude reappraisal exercise:

> For the next 20 minutes we would like you to write about your open memory. Think again about this experience for a few moments. At first it may seem that the event you wrote down might not have had any positive effects upon your life. However, sometimes even when bad things happen, they ultimately have positive consequences, things we can now be grateful for. Try to focus on the positive aspects or consequences of this difficult experience. As the result of this event, what kinds of things do you now feel thankful or grateful for? How has this event benefited you as a person? How have you grown? Were there personal strengths that grew out of your experience? How has the event made you better able to meet the challenges of the future? How has the event put your life into perspective? How has this event helped you appreciate the truly important people and things in your life? In sum, how can you be thankful for the beneficial consequences that have resulted from this event? As you write, do not worry about punctuation or grammar, just really let go and write as much as you can about the positive aspects of your experience that you feel you now can be grateful for.

I believe that this intervention has potential, not only for individuals interested in improving their well-being, but for clinical populations as well. We felt that the positive results of this study were achieved because the grateful processing condition helped individuals fit this unpleasant memory into their good life story, and subsequent linguistic analyses of the journaling in this study have added some support to this theory (Uhder, 2010; Uhder, Kononchuk, Sparrow, & Watkins, 2010). Thus, not only may gratitude interventions be used to amplify the good one experiences in good events, gratitude may also be used to amplify the good in bad events as well. In sum, several interventions where individuals focus on past blessings and those who have blessed them have shown significant promise to be used for enhancing happiness, and grateful processing of painful experiences may help individuals come to terms with those events. To this point, we have seen that gratitude exercises may improve subjective well-being. But how does one become a more grateful person? I now turn to this issue.

13.2 Interventions Designed to Enhance Gratitude

It is important to distinguish between gratitude interventions that are designed to enhance well-being, and interventions that are designed to enhance grateful responding (the disposition of gratitude). Although these two categories of treatment

should be related (gratitude interventions should enhance gratitude and interventions designed to enhance gratitude should enhance well-being), they are distinct and to this point we have only explored gratitude treatments that have been designed to increase well-being. Indeed, much more research has been devoted to exploring the impact of gratitude/well-being interventions than developing treatments to enhance gratitude. Although the Emmons and McCullough (2003) studies found that their gratitude intervention enhanced gratitude (when compared to the "hassles" comparison condition in Studies 1 and 2, compared to the more traditional control condition in Study 3), they only assessed state gratitude and so it is difficult to determine if indeed the counting blessings exercises encouraged trait gratitude.

Froh and colleagues (in press) have developed a program to enhance dispositional gratitude in youth, and to my knowledge this is the only study that has directly tested a treatment designed to enhance cognitive habits that should be foundational to dispositional gratitude. In two studies, they found that their treatment program enhanced grateful appraisals and well-being. I believe that this is an important study that clinicians, coaches, and researchers can build off of, so I will describe this approach in detail. This is a five session didactic program designed to train appraisals of benefits that are known to enhance gratitude. Session 1 represents a general introduction and overview of the training program. In this session the instructor emphasized the general purpose and format of the course, including the dominant themes that would be emphasized over the five sessions.

Sessions two through four of this program emphasized specific aspects of social-cognitive appraisals that have been shown to enhance gratitude. In session two the importance of help from others was emphasized, and students were trained to recognize intentional help from others. As reviewed in Chap. 3, when one recognizes what it cost a benefactor to provide a favor, the individual is more likely to experience gratitude. Thus, session three focused on helping students understand the cost of benefits to givers. The theme of session four surrounded teaching students how intentional favors benefit them. Finally, session five reviewed the essence of the social-cognitive appraisals reviewed in sessions two through four, and also emphasized the importance of reflecting on these appraisals when expressing their thanks to someone. Included in this session was a discussion about different ways to express gratitude.

Froh et al. (in press) tested this program in two studies, and found that the training protocol enhanced grateful appraisals, well-being, and grateful expressions when compared to an attention-control group. I believe that this study is important because it provides an needed foundation for developing interventions designed to enhance trait gratitude. In a nutshell, this program primarily emphasized two of the four *recognitions of gratitude* explained in Chap. 3. By teaching students about the importance of benefits from others, they are essentially enhancing their ability to *recognize the good ness of the gift*. By teaching children to recognize the intentionality and cost of gifts, the program should be encouraging the participants to *recognize the goodness of the giver*.

I believe that by discussing benefits from others throughout the program, they were somewhat indirectly teaching children to recognize gifts as well. But

perhaps this recognition of gratitude could be emphasized more directly. Here is where grateful recounting exercises could be introduced into a gratitude training curriculum. As I have argued earlier, grateful recounting may enhance well-being by training individuals to become more aware of gifts in their life. Another way of emphasizing the recognition of gifts is to instruct individuals about how easily they can take faithful benefits for granted. As I have often emphasized in this book, research has shown that humans tend to adapt to constant or consistent pleasures in their life (the emotional *law of habituation*), and thus do not garner the emotional benefit from those goods as they once did. By emphasizing this principle, this should encourage individuals to be more intentionally mindful of the more constant blessings in their life.

I have argued in Chap. 3 that *recognizing the gratuitousness of the gift* is also an important appraisal that enhances grateful responding (see Chap. 3). Research has shown that when a benefit surpasses one's social expectations, one is more likely to experience gratitude. For example, one is more likely to remember and appreciate a gift given at a random moment then when given a gift at an event of gift-giving social expectations like one's birthday. It would seem that the easiest way to encourage one to recognize the gratuitousness of the gift would be to encourage individuals to become aware of and to lower their social expectations of others. Social expectations usually operate implicitly; one is typically unaware of their social expectations. Thus, by making social expectations explicit, this should help individuals lower their automatic expectations of others. In this regard, it will probably be important to emphasize that we are more likely to develop implicit expectations of some individuals than others. Because of the *law of habituation*, people are more likely to develop hidden expectations of those who provide them with constant benefits. This is why one may fail to be as grateful as they would like to individuals such as their parents or their spouse. By becoming aware of one's implicit expectations of benefit from these individuals, one should be able to decrease these expectations and thus enhance their ability to *recognize the gratuitousness of the gift*. Surely there are other needed treatment components to those that I have suggested here. But the studies conducted by Froh and colleagues (in press) offer us an important seminal approach to the development of gratitude in people, and I believe that the time is ripe for investigating how we can best encourage individuals to become more grateful people.

13.3 What Might Moderate Gratitude Treatments?

In considering how one may best apply gratitude interventions, it is important to consider potential moderators of gratitude treatments. Does one need to be motivated for gratitude interventions to work? Do women benefit more than men from gratitude treatments? Would someone who was particularly narcissistic be able to benefit from a gratitude intervention? All of these issues are important to consider when evaluating the optimal application of gratitude interventions.

Therefore, there are several individual differences variables that should be considered when applying gratitude interventions. Some research suggests that females may gain more out of gratitude than males (Kashdan, Mishra, Breen, & Froh, 2009), and thus women may gain more from gratitude interventions. On the other hand, other results suggest this finding may be limited to adults (Froh, Yurkewicz, & Kashdan, 2009); early adolescent boys may actually gain more from gratitude than do girls. It is possible that adult men value their independence more than women, have difficulty admitting their dependence on others, and consequently have difficulty accepting and enjoying benefits they receive from others. If so, this may mean that before gratitude interventions can have maximum impact, some men (and some women as well) may need to consider alternative beliefs about themselves that allow for them to acknowledge interdependence on others. In our recent intervention study (Watkins et al., 2012), we found that although women enjoyed the gratitude intervention more so than did men (although non-significantly), men actually gained more from the treatment. This pattern of findings has several interesting implications, but it may be that men actually have more to gain from gratitude treatments than women. Women may already engage in regular experience and expression of gratitude, and so do not have as much room for improvement. Indeed, recent research has found that those low in trait gratitude gain more from gratitude treatments than those who are high in dispositional gratitude (Rash, Matsuba, & Prkachin, 2011). Whatever the case, gender is likely to continue to be an important consideration in the science and application of gratitude.

Positive affectivity may be another important moderator of gratitude interventions. Froh, Kashdan et al. (2009) found that those low in positive affect gained more from their gratitude intervention. It is possible that with normal populations, there are those who have little room for improvement in terms of emotional well-being, and thus the impact of positive psychology treatments are limited for these individuals. Grateful individuals may have little to gain from gratitude exercises. On the other hand, it could be argued that grateful individuals may be more receptive to gratitude treatments. In either case, considerations such as level of positive affectivity and trait gratitude may be important when applying these interventions.

Although I know of no research that speaks directly to this issue, an individual's spirituality may also be an important consideration when applying gratitude treatments. Grateful individuals have been shown to be more religious on a number of different measures of religiosity and spirituality (e.g., McCullough, Emmons, & Tsang, 2002; Watkins et al., 2003; see Chap. 5 of this volume), and thus gratitude exercises may be particularly effective for these individuals. However, similar to the case made above, it could be that religious individuals are already sufficiently grateful and therefore have little to gain from gratitude interventions. For these reasons, I would encourage gratitude researchers to include religiosity and spirituality variables in their intervention studies. Another intriguing possibility is that gratitude might enhance spirituality. Because induced positive affect enhances one's ability to see meaningful relationships and thus meaning in life (King, Hicks, Krull, & Del Gaiso, 2006), it is quite possible that gratitude enhances spirituality. Because religious individuals would probably be interested in enhancing

their spirituality, gratitude inductions may be important to these people. Although gratitude toward God has received little attention in the literature (but see Uhder, Webber, & Watkins, 2010), Krause's (2007) finding that gratitude toward God buffers the impact of stress in the elderly suggests that this issue deserves more attention. The experience and expression of gratitude appears to improve one's attachment with others, would gratitude interventions improve one's relationship with the Divine? Of course, gratitude toward God is likely to only be important to religious monotheists (Uhder, Webber, & Watkins, 2010), but taken together, these findings suggest that an individual's religiosity is an important consideration when designing gratitude interventions.

Individual preference may also provide a role in the effectiveness of gratitude treatments. Some studies suggest that if a participant prefers a particular positive psychology exercise such as gratitude, they are more likely to engage in the practice (Schueller, 2010). Although this seems to make sense, recall the results from our intervention study (Watkins et al., 2012). Although women enjoyed the gratitude 3-blessings treatment more than men, men benefitted more from the intervention. Indeed, enjoyment of the gratitude exercise showed no relationship with treatment improvement. What prevents people from achieving the happiness that they desire? Often, I propose, it is because people neglecting to engage in some activity, and more than likely the reason they are neglecting it is because it is not particularly attractive or enjoyable for them. Experiencing and expressing gratitude requires some humility in acknowledging that we benefit from others. It may not "feel good" for some individuals to admit this dependence, but this may indeed be the very acknowledgement that they need to improve their happiness. For me, research that more carefully examines the importance of individual preferences may reveal important issues for the application of gratitude and other positive psychology interventions.

Although other individual differences variables such as age may also have an impact on the effectiveness of gratitude interventions, one's motivation for improving one's happiness may be the fundamental moderator to consider. Indeed, Lyubomirsky, Dickerhoof, Boehm, and Sheldon (2011) found that those who chose their gratitude expression intervention experienced significantly more gain in well-being than those who completed the treatment but did not have the option of choice. Importantly, this self-selection variable did not matter in the placebo control condition, and the active treatment conditions outperformed placebo, leading the authors to conclude, "Becoming happier takes both a will and a proper way" (p. 391).

I would also encourage gratitude researchers to consider measuring variables that might be inhibitors of gratitude in their intervention studies (see Chap. 12). Factors such as suspiciousness, trait indebtedness, materialism, and envy may present barriers to effective gratitude intervention. In Chap. 12 I argued that narcissism may be the trait that is fundamental to all of these inhibitors, and it would be interesting to see if indeed narcissism inhibits the effectiveness of gratitude interventions. If these or other factors prove to be inhibitors of gratitude, gratitude practitioners and researchers may have to consider specific innovations to these treatments that are designed to overcome these barriers. Just as clinical psychologists often have to

consider maladaptive personality traits that may interfere with treatment of axis I disorders, so too gratitude coaches may need to consider personality traits that inhibit gratitude. On the other hand—as I argued in Chap. 12—it is altogether possible that gratitude interventions may in fact work against these inhibitors. For example, regularly reflecting on those who have been good to one, may help those with narcissistic tendencies to realize the importance of others in their life, and thereby develop a more balanced and adaptive self-concept. I would be quick to add that the expression of gratitude may be particularly important here. The cognitive dissonance that grateful expression is likely to provide to the narcissistic individual might be particularly powerful. To summarize, there are a number of variables that may prove to be important moderators of gratitude treatments. Researchers who are interested in gratitude treatments would be prudent to consider these variables in their designs.

13.4 Future Innovations for Gratitude Treatment Research

As seen above, there may be some personality traits that offer significant obstacles to the effective application of gratitude treatments, and these will likely require some creative innovations for future gratitude interventions. Here I would like to discuss a number of other issues that have emerged in gratitude intervention research that require innovation. For example, as pointed out by Emmons and Mishra (2011), there are still important *dose–response* issues that need to be determined in gratitude intervention research. One issue in this area is how often an individual should engage in gratitude exercises. Lyubomirsky and colleagues (2005) have argued that a good proportion of one's happiness (40 %) is due to intentional activities. These are activities in which one may choose to engage in. The reason that intentional activities are said to encourage (or discourage) happiness more than external circumstances, is because they are less subject to habituation or adaptation effects. For example, after moving into a larger more expensive house, an individual may experience a temporary bump in happiness, but more than likely they will return to their previous level of happiness several months later. With an intentional activity such as walking in an aesthetic environment however, one is less likely to become adapted to this activity, and thus the individual will continue to derive happiness from this exercise. Lyubomirsky et al. argue that positive psychology exercises such as grateful recounting are good examples of intentional activities that will be less likely to be subject to hedonic adaptation. However, even activities such as counting one's blessings can become mindless and non-intentional, thus becoming subject to adaptation effects. Indeed, she presented some evidence for this theory in that those who engaged in more frequent gratitude exercises showed smaller increases in well-being than those who did these exercises less frequently. On the other hand, the results of Study 2 of Emmons and McCullough's counting blessings studies (2003) appeared to show stronger effects on well-being than in their first study. In Study 1 individuals counted blessings once per week, whereas in Study 2 they did

this exercise daily for two weeks. These apparently contrasting results highlight the need to more specifically investigate the issue of frequency. Moreover, optimal frequency is likely to change depending on the gratitude exercise. For example, one would think that the optimal frequency for grateful recounting and grateful reflection would be more frequent than the optimal frequency for gratitude visits.

I believe the issue here is not so much frequency per se, but the more important consideration is the manner in which the exercise is undertaken. If the participant is completing the exercise more as an "assignment" or another "chore" in their day, they will not be as likely to derive benefits from the exercise. As the Koo et al. studies (2008) emphasize, *how* one counts their blessings is important. Thus, when implementing gratitude exercises it would seem prudent for individuals to think carefully about how these exercises can be accomplished in an intentional and engaged manner.

Another consideration at issue is how long the gratitude intervention should be. Gratitude treatments have varied from single session, to 1 week, to 9 weeks. I have been impressed at the long-term effectiveness of apparently simple 1-week interventions such as the gratitude 3-blessings treatment, but would it be even more effective if the intervention lasted 2 weeks? Issues such as these have yet to be determined by gratitude research.

I have also wondered about the importance of the specificity of the blessing that one is counting. It would seem that the more specific the recounting the better, but is it really better to recount "I'm so grateful I got an 'A' on the statistics exam" than "I'm so grateful for all the blessings my wife has brought to me in my life"? This has some interesting connections with the *overgeneral memory* effect in autobiographical memory (see Williams et al., 2007). My guess is that much depends on both the long-term value of the benefit, and how much specific meaningful information one activates and elaborates regarding the benefit. For example, if one simply states, "Yes I'm really grateful for my wife", this may be very different than the individual who states that he is grateful for his wife, but is also recalling the many benefits that he believes his wife has brought to him.

The final innovation that I would like to explore is that of an integrated gratitude intervention. I have described a number of different gratitude treatments over the course of this chapter, can these treatments be effectively integrated into a gratitude treatment package? Perhaps more importantly, would this treatment package be more effective in enhancing well-being than these individual treatments? Although it would seem that if a little is good, more should be better, this is not always the case. Two completely different treatments may be impacting the same mechanism, and is such a case we would not expect to see additional advantages by combining the treatments. In theory however, different gratitude interventions should be impacting different mechanisms, and if this proves to be the case, then we would expect some advantages to integrated gratitude treatment packages. To cite an obvious example, most gratitude interventions are designed to enhance one's experience of benefits, but our grateful reappraisal treatment (Watkins et al., 2008) was specifically designed to help heal unpleasant memories. Whereas the intervention designed by Froh and colleagues (in press) is specifically designed to

impact grateful appraisals—recognizing the goodness of the gift and the goodness of the giver—other treatments such as the gratitude 3-blessings intervention may work primarily in that they enhance one's awareness of benefits (recognizing the gift). In the design and development of these integrated treatments, I believe that we should attend to the putative mechanisms that each treatment is designed to impact. Not only should this inform us as to what interventions should be included in the treatment package, it may also direct us in planning the order of the specific treatment components. For example, it may be important for people to be trained in being able to recognize benefits in their life before they can be trained to process the benefits gratefully. It could be however, that grateful recounting exercises actually train individuals to become more aware of benefits and at the same time to process their benefits gratefully. All of these questions can be answered empirically, and hopefully future research will provide clear direction on the mechanisms of gratitude interventions. Integrated gratitude treatment packages have the potential to provide benefits to long-term well-being, and I look forward to research endeavors that undertake this important task.

13.5 Conclusions About Gratitude Interventions

In this chapter my desire was to provide the reader with specific descriptions of gratitude treatments that have shown some benefit to well-being. Hopefully individuals who would like to apply the science of gratitude can use these descriptions, but I also hope that this discussion has provided researchers with important empirical questions to pursue regarding gratitude interventions. If gratitude is indeed good, then it behooves us to know *how* to best apply gratitude to benefit people's lives. Let me now close with two concerns that I have about gratitude treatments. First, I am concerned that the success of gratitude treatments might breed somewhat of an *extrinsic gratitude*. By this I mean that we may see people engaging in gratitude exercises primarily to enhance their own happiness, and thus the focus of their awareness shifts to their own well-being. Although the literature now contains compelling evidence that gratitude does enhance well-being, in its essence gratitude is an other-focused emotion and *intrinsic gratitude* will always be focused on the giver. Gratitude interventions that foster self-preoccupation are bound to backfire. Second, I submit that our goal should be to encourage an embodied gratitude, and we should avoid that gnostic gratitude that turns gratitude into merely mental manipulations. Gratitude in its fullest form includes a response, and thus I believe that it is important that the expression of gratitude is included in our interventions. As William Faulkner said somewhere, "Gratitude is a quality similar to electricity: it must be produced and discharged and used up in order to exist at all."

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Chapter 14
Conclusion: Explaining Gratitude

The test of all happiness is gratitude.

–G. K. Chesterton

Because of my gratitude research I am sometimes asked to conduct workshops for clinicians. When asked to provide these seminars, I try to warn the organizer that my approach will emphasize the science of gratitude, for the practice of gratitude must be grounded in the science of gratitude. The response from the one planning the event is invariably, "Of course, I wouldn't want it any other way." But even though participants are warned that this will be my approach, and even though I typically begin these workshops with a warning and a justification for the scientific approach, at some point someone will provide a remark something like this: "Just tell me how to do it." Surely there is an element of truth in the complaint that scientists are often sequestered in their ivory towers creating theories that have no relevance to the practical realities of living the good life. But if we do not operate from good scientific theories when applying the techniques of gratitude, our application will tend to be aimless and without purpose. Indeed, we will not understand *why* we are administering the gratitude exercises, nor will we understand *what* we are attempting to change. I submit that employing practices of gratitude without understanding why we are doing so (i.e., without an underlying theory of gratitude), may well result in a kind of extrinsic gratitude that ends up not being gratitude at all. As da Vinci said somewhere, "He who loves practice without theory is like the sailor who boards ship without a rudder and compass and never knows where he may be cast."

Thus, in concluding this book my goal is to review notable (and I believe helpful) theories of gratitude. I will first review theories that attempt to answer the question "What is gratitude?" Then I will discuss theories that attempt to explain the causes gratitude. And finally I will explore theories that explain the good of gratitude. These theories seek to explain, "Why does gratitude seem to be so important to the good life?" It has been said that there are two overarching goals of

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psychological science: establishing relationships between psychological variables, and fitting those relationships into an orderly body of psychological knowledge (Martin, 2008). In this text I have covered a vast amount of information about how gratitude relates to a number of psychological variables. This is encouraging in that it represents the great growth in the science of gratitude—growth in a field that was widely neglected in psychology before the new millennium. However, this increasing knowledge base can be quite overwhelming, and unless we can organize it in a way that helps scientists and lay audiences understand these relationships in a meaningful way, all we are left with is a long and somewhat confusing list of relationships. This is one reason that I believe theory building is so important. Good theories not only provide a clear way forward for research, they also help us make sense of the extant data. And when we can effectively make sense of this body of data, then we can most effectively apply the science of gratitude. As Kurt Lewin so famously said, "There is nothing so practical as a good theory" (1951, p. 69).

14.1 Explaining What Gratitude Is: The Moral Affect Theory of Gratitude

Most researchers in the psychology of gratitude would agree that the most important article for encouraging the recent wave of gratitude research was McCullough and colleagues' *Psychological Bulletin* piece on gratitude as a moral affect (2001). Although this important review did much more than provide a definition of gratitude, I believe that its primary contribution was to organize the extant research under a theory of the essential nature of gratitude.

In the same way that guilt, shame, and empathy can be conceived of as moral emotions, McCullough and associates proposed that gratitude should be viewed as a moral affect (see also Tangney, Stuewig, & Mashek, 2007). While this theory can be criticized as reducing moral behavior to prosocial behavior, the argument that gratitude is best seen as a moral emotion is compelling. McCullough et al. argued that gratitude is a moral emotion in three ways. First, gratitude is a *moral barometer*. Just as a barometer is an indication of the weather, so too the experience of gratitude is an indicator of the moral climate. When one feels grateful, one feels that others have been good to them.

Second, McCullough and colleagues argued that gratitude is a moral emotion in that it acts as a *moral motivator*. An essential component of any emotion is that it motivates, or to use the expression of emotion researchers, it puts individuals in thought/action readiness modes (e.g., Fredrickson, 1998; Frijda, 1988). McCullough et al. argue that the action readiness that gratitude prepares people for is moral in nature. Stated more simply, when people feel grateful, they feel like doing good to others. Gratitude motivates prosocial behaviors.

Finally, McCullough and colleagues attempted to show that gratitude was a *moral reinforcer*. By this they meant that when gratitude is expressed, it provides positive reinforcement to the individual who is performing the moral behavior. This of course, makes the prosocial behavior more likely to occur in the future. For example,

if one of my colleagues provides me with an article that they think might interest me, I will probably feel grateful for this favor. When I express my gratitude to them, this should reinforce this behavior and they may be more likely to provide similar benefits to me in the future. Interestingly, research shows that the benefactor is not only more likely to provide future benefits to the one expressing her gratitude, they are more likely to provide favors to others as well. In this, we see that this theory not only explains the essential nature of gratitude, it also helps us understand the functionality of gratitude. Gratitude is good because it encourages moral behavior, both in the benefactor and in the beneficiary.

In my judgment this theory provided an excellent organization of the gratitude research that was available at the time, but it also provided a needed impetus and guide for future research. At the time this paper was published (2001), there seemed to be considerable support for the *moral barometer* and *moral reinforcer* components of this theory. At the time however, there was very little if any research that had directly investigated the *moral motivator* hypothesis of gratitude. This encouraged much subsequent research on this issue, and as I reviewed in Chap. 8, there now seems to be promising support for this aspect of the theory. For me, the McCullough et al. paper continues to be an important resource, and I believe that any researcher who desires to design a program of gratitude research should consult this paper carefully. Indeed, there seems to be much fruit in conceptualizing gratitude as a moral affect.

As we leave the issue of the essential nature of gratitude, it is important to point out that thus far I have only emphasized the nature of gratitude as an emotion. This leaves the "what" of gratitude as a mood and as a disposition in doubt. As I argued previously in this volume, there is much work that needs to be done on gratitude as a mood state. Some theory development has been accomplished on the nature of gratitude as an affective trait, but here too, I think the field could use more theory development. What constitutes the essence of a grateful person? We have argued (Watkins et al., 2003) that grateful people have a *sense of abundance*, an *appreciation for simple pleasures*, and an *appreciation for others*, and these factors serve to foster a more general attitude that views all of life as a gift. Although we used these suppositions to create our measure of trait gratitude, what does it really mean for an individual to have a sense of abundance? What does it mean, psychologically speaking, to appreciate others? Are these really core characteristics of the grateful person? Are there other factors that may be seen as cardinal traits of the grateful disposition? These are all questions that seem to call for future research.

14.2 Explaining What Causes Gratitude: The Social-Cognitive Model of Gratitude

Because gratitude is a cognitively imbued emotion, and because appraisal theories appear to dominate the landscape in the psychology of emotion, theories about the causes of gratitude have emphasized attributions and appraisals of benefits

(for a review, see McCullough, Kilpatrick, Emmons, & Larson, 2001). I have summarized this literature by proposing *recognitions of gratitude*; four cognitive patterns that research has shown enhance the emotion of gratitude (see Chap. 3 of this volume; Watkins, 2001, 2008). Gratitude is more likely when one *recognizes the gift* (one recognizes that a benefit has occurred), when one *recognizes the goodness of the gift* (the more one values a gift the more they will be grateful for it), when one *recognizes the goodness of the giver* (when one sees the benevolent intentions of the giver and the cost of the benefit to the giver, one is more likely to experience gratitude), and when one *recognizes the gratuitousness of the gift* (gratitude is more likely when one appraises the benefit as going beyond their expectations of the giver). Although I have spoken of these recognitions as if they are independent appraisals, some evidence suggests that they all comprise one latent factor (e.g., Wood, Maltby, Stewart, Linley, & Joseph, 2008).

Although I believe that the recognitions of gratitude provide a good account of the cognitive causes of gratitude, this approach is incomplete. Clearly, individuals appraise the same benefit in different ways, and so as we seek to explain the causes of gratitude we must ask why two different people can appraise the same benefit so differently. For example, one person may view a Christmas bonus as a wonderful gift whereas another thinks it is only what his employer owes him. Clearly these different appraisals will lead to different levels of gratitude.

Because researchers had not really attempted to deal with these issues, Wood and colleagues developed the *social-cognitive theory* of state and trait gratitude (2008). From their perspective, benefit appraisals are the proximate cause of grateful emotions, but both situations and trait gratitude independently contribute to how one appraises a benefit. To return to my example above, a grateful person may be more likely to appraise a Christmas bonus as valuable, given out of good intentions, and going beyond what they would expect of their employer. A less grateful person on the other hand, would not see the bonus as all that valuable, might question the motives of their employer ("they just want me to work longer hours next year"), and would see the bonus as an entitlement. Clearly in this example, the grateful person would experience more gratitude than the less grateful person in response to the bonus.

In three studies Wood et al. (2008) showed strong support for this model. In Study 1 they used a vignette study to show that indeed, grateful individuals were more likely to have benefit appraisals of a blessing, and these appraisals mediated the relationship of trait to state gratitude. In Study 2 they replicated this finding with a daily process study. The authors again used a vignette methodology in Study 3, but this time they manipulated the appraisals of a benefit to demonstrate that benefit appraisals are the proximate cause of state gratitude. Interestingly, although both trait gratitude and objective situations contributed to the nature of benefit appraisals, it appeared as though objective situations were the stronger contributor. What causes gratitude? According to the social-cognitive model offered by Wood et al., a composite of benefit appraisals causes gratitude, but both the situation and one's grateful disposition determine these appraisals. I believe that this theory very effectively summarizes and explains the research on the causes of gratitude.

Although we have discussed the causes of grateful emotion, we have not yet explored theories that attempt to explain the causes of dispositional gratitude. What makes a *person* grateful? In my view much more theoretical work is needed on this issue (see Chap. 11), but Wood and associates' (2008) social-cognitive theory of gratitude has some interesting implications for what constitutes a grateful person. A person high in trait gratitude may be viewed as a person who has developed a *gratitude cognitive schema*. When this schema is activated (and it should be more easily and chronically activated in grateful people), they should be more prone to appraise a benefit with benefit appraisals. How would this gratitude schema develop? In my view, this is the question most in need of theoretical and empirical work in the science of gratitude (see Chap. 11). In sum, I believe that the social-cognitive theory of gratitude gives us the best explanation and understanding of the causes of gratitude.

14.3 Explaining How Gratitude Enhances Well-Being

In this book I have argued that there is now sufficient evidence to indicate that gratitude causes increased well-being (see particularly Chap. 4). It remains for us to determine *how* gratitude enhances well-being. Or, to quote a colleague at a recent convention, "Why is gratitude so great?" In this section I will explore three theories that help us understand how gratitude contributes to the good life.

14.3.1 Gratitude Broadens and Builds: Explaining How Gratitude Enhances Personal and Communal Resources

Barbara Fredrickson's *broaden-and-build theory of positive emotions* provides another helpful framework for understanding the gratitude literature (Fredrickson, 2001). She has now applied her theory more specifically to gratitude, and I believe that this has been a fruitful model for moving the science of gratitude forward (Fredrickson, 2004). Briefly, Fredrickson argues that positive emotions evolved because they are functional in some way, and their benefit to survival is distinct from the functionality of the negative emotions. While negative emotions are adaptive in that they tend to promote narrowed action tendencies that enhance survival in the short-term (e.g., motivating flight responses in the presence of danger), positive emotions broaden one's thought/action tendencies, and build resources for more long-term adaptation.

First, Fredrickson argues that like other positive emotions, gratitude broadens our momentary thought/action tendencies. Positive emotions broaden thought/action tendencies in three ways: they broaden the scope of attention, they broaden the scope of cognition, and they broaden the scope of action. Specifically, she argues

that gratitude should broaden in that when one feels genuinely grateful they will engage creative cognitive processes to think about the various ways that they can respond in a prosocial manner to benefactors, and thus we should see a wider array of reciprocal responses motivated by gratitude. This is in contrast to indebtedness (a negative affect), where one would expect more narrowed tit-for-tat responses to benefits. Although it seems more work is needed to test this idea, in scenario studies we have found that gratitude is correlated with an increasing number of reported prosocial action tendencies, whereas indebtedness is not (Watkins, Scheer, Ovnicek, & Kolts, 2006). Perhaps an example will illustrate Fredrickson's theory. Imagine that someone has provided you with a copy of his or her notes for a lecture that you missed. Indebtedness should promote a simple tit-for-tat response—looking for an opportunity to return the favor with notes for a lecture that your benefactor has missed. But gratitude should motivate more creative responses than indebtedness. In this sense the Broaden and Build Theory implies that a grateful response will broaden the scope of one's cognition, and we one should be more likely to see creative responses of recompense. Fredrickson's theory implies that grateful people will think creatively about ways to favor their benefactor. So although they may respond with a similar benefit, grateful people will think more creatively about how to meet the needs of their benefactor. The benefactor may not need lecture notes, so the beneficiary may provide other favors that more specifically meet their needs. Moreover, I submit that the Broaden-and-Build Theory implies that the beneficiary will broaden the scope of their attention to benefit others beyond their benefactor. To continue my example, the grateful person may be more alert to students other than her benefactor to provide lecture notes. I believe Fredrickson's theory also implies that the grateful person (versus the indebted person), will be less concerned with the specific value of the benefit, and may well provide a benefit to their benefactor that is greater in value than the original favor. More research is needed to test these ideas, but I believe that Fredrickson's approach helps us understand the momentary thought/action tendencies of gratitude.

How does gratitude build personal resources for the future? Fredrickson (2004) argues that gratitude can build unique personal resources that help individuals deal with future challenges. According to Fredrickson, gratitude builds resources in at least four ways. First, gratitude builds and strengthens social bonds, and this is one of the most important resources for living well. Indeed, research appears to strongly support this assertion (see Chap. 8). Second, gratitude should build more civil communities and organizations. Third, she argues that gratitude should build and strengthen spirituality, which should also enhance well-being. This is a very interesting suggestion. Just as gratitude should strengthen human bonds, so should gratitude strengthen one's bond with the Divine. Recent research into gratitude toward God lends some support to this assertion (e.g., Uhder, Webber, & Watkins, 2010; Watkins, Uhder, Webber, Pichinevenskiy, & Sparrow, 2011), but I believe that this could be a fruitful avenue for future research.

Fourth, Fredrickson (2004) argues that gratitude may help build one's "more general skills for loving" (p. 152). I find this to be an intriguing proposition, and one that has largely gone untested. In one sense it would seem to be obvious; the more one experiences gratitude the better they should be at expressing gratitude. But the ability to effectively express one's love and appreciation toward those who are important to one's well-being is likely to be an important skill that is foundational to flourishing, and I am surprised that this notion has gone untested.

Not only does gratitude build, Fredrickson (2004) goes on to argue that gratitude transforms. She makes a compelling argument that gratitude can transform both at the individual and organizational levels. This is accomplished through the activation of *upward spirals*, or what I have called *cycles of virtue* (Watkins, 2004). Positive emotions like gratitude fuel self-sustaining systems that can promote continued growth, both in individuals and in communities. For example, in that positive emotions promote more flexible and creative thinking, this thinking style should help individuals deal more effectively with stressors in the future, which should continue to promote the experience of positive emotions and growth. Indeed, Fredrickson has provided some support for this theory in that the experience of positive emotions enhance resilience which then enhances the experience of positive emotions in the midst of challenges (Fredrickson & Joiner, 2002; Fredrickson, Tugade, Waugh, & Larkin, 2003; see Chap. 9 of this volume). Future research could more specifically investigate whether gratitude activates these upward spirals. In sum, Fredrickson argues that gratitude enhances well-being because it broadens momentary thought/action tendencies, and it builds resources for living well in the future.

14.3.2 Find, Remind, and Bind: Explaining How Gratitude Enhances Social Well-Being

Fredrickson's theory argues that gratitude is good in that it enhances social resources. *How* does gratitude enhance social resources? Sarah Algoe's (2012) *Find, Remind, and Bind theory of gratitude* expands on Fredrickson's theory to help us better understand how gratitude builds social resources. She argues that gratitude enhances social well-being in that it helps one find new relationships, it reminds people of their ongoing relationships that serve to enhance their well-being, and gratitude helps bind existing relationships. As I argued in Chap. 8, accumulating evidence appears to provide promising support for her theory, and I believe that this theory effectively captures the extant research on how gratitude enhances one's social well-being. Moreover, those interested in conducting future research on how gratitude contributes to social well-being would do well to pay careful attention to this theory.

14.3.3 Amplifying the Good: Explaining How Gratitude Is Important to the Good Life

In this text we have seen that gratitude is one of the more important facets of the good life. *How* does gratitude contribute to well-being? I propose that an amplification theory of gratitude effectively explains why gratitude is good. In short, I submit that gratitude amplifies the good in one's life. Just as an amplifier increases the volume of sound going into a microphone, so gratitude amplifies the good in one's life. Just as a magnifying glass magnifies the image of the subject it is focused on, so gratitude magnifies the good in what it is focused on. Although not common in psychology, analogical amplification theories have been used to explain several different phenomena. For example, somatosensory amplification has been used to explain hypochondriasis and mental health worries (Barsky, 1979; Barsky, Goodson, Lane, & Cleary, 1988; Barsky, Wyshak, & Klerman, 1990; Koteles, Szemerszky, Freyler, & Bardos, 2011). Amplification has also been used to explain the impact of imagery on emotion (e.g., Holmes & Mathews, 2010; Holmes, Geddes, Colom, & Goodwin, 2008), and misperceptions in relationships (Cameron, Holmes, & Vorauer, 2011). Amplification and magnification were also critical components of Silvan Tompkins' script theory of emotion (albeit that he conceived of these as distinct processes, Tompkins, 1962, 1963, 1979). Indeed, it has been argued that amplification is at the heart of consciousness itself (Gabora, 2002). Here, I shall argue that the analogy of amplification provides a good explanation for *how* gratitude is important for living well.

Very simply, an amplifier increases the power of a signal. Stated differently, an amplifier enhances the strength of a signal. The basic premise behind this theory is that gratitude enhances the signal strength of who and what are good in one's life. Thus, by experiencing and expressing gratitude, information on the goodness in one's life is strengthened, and this is the principal reason for why gratitude enhances well-being.

There are a few interesting implications of this analogy. For example, when an amplifier enhances signal strength, it always does so by introducing some noise. Whereas a good amplifier increases the volume of sound by introducing a limited amount of noise, all amplifiers by necessity introduce some noise into the system. This is because an amplifier can only work off of the information it is given, and thus when it amplifies this information it will inevitably do so by introducing a certain amount of noise. Take for example a digital camera. When an individual takes a digital photograph of something and downloads it on to their computer, they can magnify the image as much as they would like. But no matter how large the image is magnified, the image can never contain any more information than what was captured in the original picture. Thus, when one takes a picture with a typical camera phone (which does not contain a lot of fine grained information in the photo), greatly magnifying the image only produces blurry images. Just as an amplifier always introduces some noise, so too gratitude will introduce noise is it amplifies the good. What kind of noise will gratitude introduce into the system? I surmise

that because gratitude is essentially designed to amplify the good of a situation, the "noise" that gratitude introduces will likely be related to the beneficial aspects of the situation. In other words, gratitude may introduce increased perceptions of goodness in both the gift and the giver that may be exaggerated beyond the actual situation.

Is the "noise" that is introduced into the system by gratitude maladaptive? Although there may be occasions where this noise is maladaptive, I argue that exaggerated perceptions of goodness in one's world are largely adaptive. Although the experience and expression of gratitude may promote a goodness information processing bias—grateful people may perceive people and circumstances to be better than they actually are—I believe this bias will actually promote well-being. Consider the following example. Imagine that someone provides me with a benefit; let's say they send me an article on gratitude that I was not aware of. The amplification theory implies that if I experience this benefit with gratitude (and even more so, if I go on to express my gratitude), then this will amplify the goodness of the benefit and the goodness that I associate with the giver. This gratitude is likely to introduce some noise, in that I may well believe that the benefit is better than it actually is, and I may believe that my benefactor is better than he really is. But are these biases really maladaptive? For the most part, I think not. What if my benefactor really did want to benefit me, but his good intentions were mixed with other self-oriented motivations as well? For example, what if his gift were given out of feelings of indebtedness ("Phil has given me useful articles before, I'd better return the favor"), or selfish expectations ("If I provide these benefits for Phil he's more likely to vote in favor of my promotion"), in addition to genuinely attempting to benefit me by providing this article? Surely most gifts have some mixed motivations as in this example, what is the use of making sure we understand a giver's selfish motivations in addition to his altruistic intentions? I argue that in most situations, it is not of much use to consider the negative side of what motivates gift giving, and indeed to focus on these ulterior motives would serve to decrease one's enjoyment of the gift. In rare situations, people are providing benefits purely out of their own selfish gain (e.g., to manipulate or to put one in their debt so that they can gain some kind of control over them), and in these cases, the "noise" that the gratitude amplifier introduces may in fact not be adaptive. But I submit that these occasions are not the norm, and for the most part the gratitude amplifier introduces "goodness noise" that serves to benefit emotional well-being. Thus, the gratitude amplification theory implies that gratitude should introduce some noise into the system, but I propose that this biased signal strength of goodness is largely beneficial to well-being.

If gratitude amplifies the good in life, how does that contribute to the good life? I submit that when one is keenly aware of what and who are good in their life, this should enhance their well-being because they will be very aware of what and who to approach to enhance their happiness. Moreover, being aware of the goodness in one's life should encourage a perception of the bounty in life, which should increase life satisfaction. In the following paragraphs I explain in more detail how I think that gratitude amplifies the good in several areas, and how this theory helps us understand the mechanisms that explain how gratitude enhances well-being.

First, I submit that gratitude enhances the good in our present experience. When benefits are experienced with gratitude, this should amplify the positive emotions that one experiences. Moreover, in that gratitude amplifies the good in one's ongoing experience, this should cause one to become more aware of the benefits in their life. Not only should individuals be more aware of these benefits, gratitude amplification implies that they should attribute more value (i.e., more goodness) to those benefits. Surprisingly, there is not a lot of evidence that speaks directly to this issue. When a benefit is experienced with gratitude, do people enjoy the benefit more? Although this seems to be a clear implication of the gratitude amplification theory and it is intuitively appealing, in my view future research should target this question. In Chap. 6 I have explored the research relevant to this question in more detail. Thus, gratitude may be important to the good life because it amplifies the good in one's ongoing experience.

Gratitude may also enhance emotional well-being because it amplifies the good from one's past. In Chap. 7 I explained how gratitude enhances memories of positive events in such a way that supports well-being. I believe that the amplification theory of gratitude nicely accounts for the research in this area. We have seen that positive memories are more accessible and more enjoyable for grateful people. If gratitude amplifies one's experience and value of pleasant events, these events should be more likely to be encoded into memory, and thus should be more easily recalled. Moreover, by amplifying the goodness in one's ongoing experience, gratitude should encourage awareness of new benefits (that may be ignored without gratitude), and in this way too, pleasant events should be more likely to be encoded into memory. Finally, the trait of gratitude should encourage people to reflect more frequently on the good in their past, and in this way too gratitude should amplify the good in one's past.

Third, gratitude is important to the good life because it amplifies the good in one's social world (see Chap. 8 for a thorough description of how gratitude enhances social well-being). First, gratitude amplifies one's awareness and assessment of the goodness of others toward them. When one regularly experiences and expresses gratitude, they become more aware of the good that others do for them, and the goodness that they perceive in others is amplified. In this way, the regular experience of gratitude should encourage a more benign view of one's social world—grateful people will see their world as more positive and non-negative.

By seeing the good in others, this should amplify the good in one's social world in additional ways. First, expressing one's view of the goodness of others has been shown to be good for one's social life. Because gratitude is a *moral reinforcer*, those who express their gratitude should receive more social good from others. Second, because people like grateful individuals, gratitude should also produce more benefits in one's social life. Third, the work of Sarah Algoe (2012) has shown that gratitude produces a number of benefits in intimate relationships. Indeed, experiencing and expressing gratitude appears to improve close relationships. Fourth, gratitude amplifies the prosocial good in one's self. As McCullough and associates argued (2001), gratitude is a *moral motivator* in that when one feels grateful, they are more likely to do good to others. In this way, gratitude can be seen to amplify

the social good in one's self, and this should also benefit social well-being. Thus, both through cognitive processes and through relationship dynamics, gratitude can be seen to amplify the good in one's social world. In sum, gratitude amplifies the signal strength of the goodness of others. Because social variables appear to be so important to happiness, this is likely to be a very important reason for how gratitude enhances well-being.

Although this proposition is much more speculative, gratitude may also amplify the good in one's self in that it encourages self-acceptance. This is because when one experiences gratitude, one is implicitly communicating to one's self that they are worth doing good to. Although we know that gratitude is strongly correlated with self-esteem, to my knowledge research has yet to confirm that gratitude indeed *causes* increased self-acceptance. I use the term self-acceptance rather than self-esteem because I believe that gratitude is likely to be more important to self-compassion than to self-esteem. It is not so much that gratitude makes one feel great about one's self. Rather, I submit that gratitude promotes more of a quiet self-acceptance and self-compassion. In this way, gratitude might amplify the good in one's self, and this could be an important mechanism for helping us understand how gratitude helps us flourish.

Finally, I submit that gratitude amplifies the good that one might see in bad events. Research shows that grateful people are particularly good at dealing with stress, and they seem to do this through social support and positive reframing (see Chap. 9 for a thorough description of how gratitude enhances coping). When one is able to see and be grateful for the good that comes from bad events, they are more able to deal effectively with the event, and this might be another reason why grateful people tend to be happy people. In this way, gratitude may be seen as amplifying the good in negative events.

In sum, I propose that gratitude enhances well-being because it amplifies the good in one's life. Gratitude amplifies the good in one's present experience, it amplifies the good from one's past, gratitude amplifies the good in one's social life, it amplifies the good in one's self, and it even amplifies the good in bad events. I believe that this theory helps us organize and understand the research on gratitude and well-being, and hopefully this theory will be an effective impetus for future research. Scientific humility however, demands that I admit that this theory is likely to be inadequate in a number of ways, if not completely wrongheaded. Although I believe that this theory can be scientifically useful, it behooves me to reflect on C.S. Lewis's reminder on this issue, "The great masters do not take any Model quite so seriously as the rest of us. They know that it is, after all, only a model, possibly replaceable."

14.4 Summary and Conclusion

In this book we have explored the "what" and the "how" of gratitude. I first explained what gratitude is, what causes gratitude, what good is gratitude, and I concluded this initial section of the book by describing what grateful people are

like. We then moved on to investigate the "how" of gratitude, where I discussed the question of how gratitude contributes to the good life. More specifically, we explored the various mechanisms that help us understand how gratitude supports well-being. As I conclude this book, I would like to move to the "why" of gratitude; why is it important to investigate this state and trait?

I now end the book where we began, with the provocative proclamation of Baumeister, Bratslavsky, Finkenauer, and Vohs (2001): "Bad is stronger than good." In their compelling review, they concluded that bad emotions, bad interactions, bad feedback, and bad events have more psychological power over us than good. Criticism takes precedence over compliment, hostility over harmony, pain over pleasure, and disappointment over delight. In a nutshell, people spend a lot more psychological capital on the bad than on the good. Perhaps "Bad is stronger than good" is a curious way to end a book on positive psychology. But it is precisely because bad emotions, bad events, and bad interactions tend to demand attention that gratitude becomes so important. Because "Bad is stronger than good", it becomes very easy for people to let the bad overshadow and drown out the good in their life. Because the bad can so easily take precedence in one's awareness, people need something that amplifies the good in their life. Gratitude amplifies the good in one's life. By consistently experiencing and expressing gratitude individuals may become more aware of the blessings that are given to them. Just as an amplifier amplifies the sound coming into a microphone, so gratitude amplifies the good. Just as a magnifying glass magnifies the object it is focused on, so gratitude magnifies the good that others do for us. "I would maintain that thanks are the highest form of thought;" wrote Chesterton (1917, The age of the Crusades, para. 2), "and that gratitude is happiness doubled by wonder." Perhaps the reason that "thanks are the highest form of thought" is because gratitude amplifies important blessings and people in one's life.

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